The West Midlands A regional study

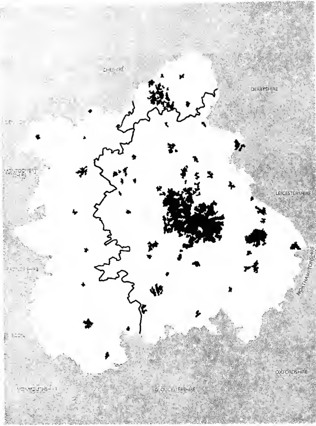

Fig. 1. The main built-up areas of the West Midland Region 1958
The map shows the extent of built-up areas at the latest date for which information on a uniform basis is readily available nationally. Open uses on the periphery of towns, e.g. hospitals, institutions and houses in large grounds and airfields, are not shown as built-up; within towns only the largest open spaces are shown. Boundaries of the divisions of the West Midlands (see Appendix, Table 2) are marked.

Department of Economic Affairs

The West Midlands

A regional study

London: Her Majesty's Stationery Office: 1965

Preface

This report on the West Midland Economic Planning Region summarises the results of a study made by a group of officials from Government Departments concerned with regional planning, with the object of providing a basis on which future plans for the region can be drawn up. It consists of a general survey and analysis of information at present available about the region; an appraisal of its principal characteristics and problems; some suggestions about the way in which the more urgent needs might be met; and proposals for further research.

In the course of the study the group received a great deal of help from people in the region who reflect a wide range of local interest and experience—in industry and commerce, in universities, in voluntary organisations and in local government. The local planning authorities in particular gave valuable information, estimates and general views about the problems in their areas. The contents of the report are, however, the responsibility of the group.

The report has been referred to the West Midland Economic Planning Council and is being published so as to enable others concerned with the problems of regional planning to express their views on the findings contained in the study. These should be communicated, in writing, to the Secretary, West Midlands Economic Planning Board, Department of Economic Affairs, Five Ways House, Islington Row, Birmingham, 15.

In referring the report to the regional Economic Planning Council the Government have made it clear that they are not in any way committed by the Study Group's findings, and that any proposals for action which may be made will have to be considered in the light of the National Plan and of programmes and policies for the country as a whole.

DEPARTMENT OF ECONOMIC AFFAIRS 1965

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TABLES INCLUDED IN THE TEXT

ILLUSTRATIONS

The maps and diagrams in this Study have been prepared by the Ministry of Housing and Local Government.

Fig. 2. Economic planning regions of Great Britain
Regions for economic planning purposes have, at time of going to press, been defined for all areas of Great Britain except the South East (see Appendix, Table 1)

1 Introduction

THE REGION DEFINED

1. The West Midlands region for this study is the standard region of Staffordshire, Warwickshire, Worcestershire, Herefordshire and Shropshire—an area straddling the Severn, Avon and Trent, roughly 80 miles square and embracing Birmingham, Coventry, Stoke and Worcester together with their hinterlands and all the towns and countryside between them and the Welsh border. The population is nearly five million.

2. The decision to cover the whole of the area formed by these five counties is partly for convenience: as a standard region it is one for which comparative demographic and social and economic statistics are the more readily available. But it also reflects a continuing reality: this, broadly, is the area which looks to Birmingham as its big city and is dominated in communications, economy and population pattern by the influence of the Birmingham conurbation.

3. The definition is not exact. In the east and west the conurbation's influence extends fairly strongly some way beyond the regional boundaries; in the north and south it comes up quite quickly against the influence of Manchester and London. Major decisions about the West Midlands must therefore have regard also to what is envisaged for the adjacent regions of Wales, the North West, the East Midlands, and London and the South East. Nevertheless the five counties mentioned do have enough in common, and enough that marks them off from other parts of the country, to form together as suitable an area as any for separate treatment within the national framework of regional study and planning in the present state of the art. It is a region which at present has the outstanding characteristic of continuing prosperity and growth at its centre—and the problems to which these can give rise.

ITS SITUATION

4. One factor in this growth has been the region's good strategic position for getting men and materials and fuel and for delivering their products. Here north meets south where England marches with Mid-Wales. Here is a centre of the country's once highly active system of canals. Here the roads and rails cross which link the Bristol Channel with the Humber, and the Mersey with the Thames. Here now, also, pass the routes of the north-south national motorways—M1, M5 and M6—due soon to be linked up through the heart of the region like the middle of a gigantic letter H. The land-locked West Midlands is thus within easy reach of more major ports than is any other region of the country; and is equally well-placed for all the main domestic markets. It will soon be well served by pipelines.

THE LOCAL NATURAL RESOURCES

5. But there has been more to it than simply centrality. The region has also enjoyed useful local resources. Its accessibility has been a function of relative freedom from hill and bog. More than threequarters of its total acreage is farmland—varying in type but including some of the very highest quality. There has therefore been a sound agricultural background. In addition there have been the local minerals—iron ore formerly, and still today coal (about one twelfth of national output), brickclay, and industrial clays and sands. Along with this has gone the advantage of relatively easy expansion of supplies of water, in step with growth in population and industry, through access to good rivers and gathering grounds locally and in the Welsh mountains.

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6. These factors are reflected in the region's present layout of settlement. This can conveniently be considered in three divisions, viz.,

(a) the rural west consisting of Herefordshire and most of Shropshire;

(b) North Staffordshire (including the Potteries); and

(c) a central division consisting of the East Shropshire - Black Country - Birmingham - Coventry complex together with the towns and countryside in its hinterland.

The rural west

7. This area of some 320,000 people lies mainly between the Severn and the Welsh Border, and therefore some distance away from the major national routes which serve the region's more central areas. It has many stretches of great natural beauty, few mineral resources, and only some five per cent of the region's total labour force. The main activity is agriculture—soundly based on the whole and with rising productivity and no great labour difficulty. Most of the manufacturing industry is concentrated in the road, rail, and market centres of Shrewsbury (a town of 50,000 still retaining much of architectural and historical interest) and Hereford (an attractive cathedral city with some 43,000 people well to the south on the River Wye). Around Shrewsbury are clustered little country towns like Whitchurch, Oswestry, Church Stretton and Ludlow. Around Hereford lie Bromyard, Leominster, Kington and Ross.

8. In spite of its seeming remoteness and the fact that it looks primarily to Shrewsbury and Hereford for its urban services, the rural west is nonetheless well in touch with the West Midlands' main centres. There has been some outward sprouting of people and jobs there from the Birmingham conurbation; gradual road improvements and wider car ownership and therefore a greater amount of distant travel for work and leisure; and rising rural living standards calling for increasing use of services of the sort which the conurbation can offer. In this—as also in remaining very rural in character nevertheless—this part of the Welsh Marches has something in common with the hillier and even less populous adjoining counties of Mid-Wales itself. Both look to the Birmingham conurbation rather more than to any other major city; both receive from the conurbation a substantial proportion of visitors, weekenders and retired people; and these features are reflected in their major lines of communication. The main local problem is how to prevent stagnation in the countryside and the small towns as the demand for farm labour continues to decline and the bigger urban centres exert an increasing attraction to the population.

North Staffordshire

9. By contrast North Staffordshire, lying midway along the M6 between Birmingham and the Mersey plain, is strongly dominated by urban and industrial development. It contains over half a million people and some ten per cent of the labour force of the whole region. These are housed mainly in and near the Potteries—in Stoke-on-Trent, Newcastle-under-Lyme, Kidsgrove, Biddulph, and their fringes. Beyond, there lies the small textile town of Leek, and the sparsely populated district—mainly of indifferent agricultural quality—stretching up to the Peak District of Derbyshire.

10. North Staffordshire has been classed as part of the West Midlands largely because the southern end of the county is firmly embedded in the Birmingham conurbation which is the West Midland region's core. But it looks also towards Cheshire and Lancashire, and in many ways has characteristics which are less those of the Midlands than of the North. It is possible that as communications are improved the links with the Birmingham conurbation will be stronger. Meanwhile this is still an area very much of its own, standing apart from the rest of the region. Its people form a very closely knit community with a marked sense of local patriotism. Its economy is still heavily dependent on "pits and pots", despite the recent local development of large engineering and other factories. It enjoys little at present of the economic and population expansion that has characterised the region's central areas—though like them it is suffering from a great deal of subsidence, dereliction, substandard housing and generally poor social fabric left from earlier industrial growth. Its university at Keele seems at first sight to be perhaps more in it than of it—though owing much in its inception to the initiative of the Potteries local authorities themselves.

11. In these circumstances it is not surprising that the main local problems are seen as the scale and cost of the massive effort of urban

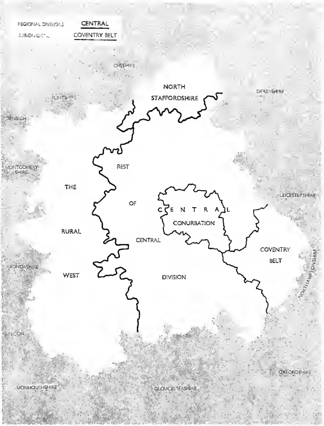


Fig. 3. **Divisions and sub-divisions of the West Midland Region** (see Appendix, Tables 2-5)

renewal that is still required, and the probable need, at some stage in the future, for further diversification of local employment as the pottery and coal industries continue to rationalise production. On a much smaller scale there is the problem, too, of finding suitable employment now for the remaining sufferers from industrial diseases common hereabouts in the past. However, the area can now look forward to better links with national lines of communication, through the prospective improved connections to the M6 motorway and the current scheme for electrification of the rail services through Stoke.

The central division

12. Of the two areas already described, the rural west is mainly attractive countryside, and North Staffordshire is mainly drab townscape surrounded by moorland. The central division is more mixed, covering East Shropshire, South Staffordshire, and all Warwickshire and Worcestershire (some of the outer fringes of the latter county, indeed, being very much akin to the rural west). With a population of over four millions and well over four-fifths of the region's jobs, it is a broad band of rural England with heavy concentrations of urban development across its middle—Birmingham, the Black Country and the Coventry belt, dominating a rural and largely agricultural hinterland which extends west and south west to include Wellington and the city of Worcester, north and north east to include Stafford and Burton-upon-Trent, eastwards to include Rugby, and southwards to include Evesham and Stratford-on-Avon. It is here—and especially in the Black Country, Birmingham and Coventry—that lie the region's main industrial strength and growth and its power to contribute to growth elsewhere. The division's three discernible clusters of development, surrounded by an outer ring, are as follows.

(a) The Birmingham conurbation

Birmingham itself, with well over a million people, a very marked civic consciousness, and rapidly growing University facilities, is the main centre of the whole region—not only because of its large and well-diversified industrial base but also because it acts to a large extent as the commercial, service and cultural capital—though not without some competition from nearby places. Birmingham and the neighbouring Black Country together, including the important industrial boroughs of Wolverhampton, Walsall, West Bromwich, Smethwick and Dudley along with a host of smaller towns, form a continuous conurbation over twenty miles wide, with a strongly growing population which is already nearly 2·4 millions. Around this great mass is a wide girdle of relatively open countryside which has been proposed and in practice treated as a green belt to restrict the conurbation's outward sprawl. The conurbation itself is a pepperpot mixture of nineteenth and twentieth century, with renewal and dereliction and industrial and residential areas often cheek by jowl. Some parts are pleasant, especially on the fringes. Some of the town centres, especially the city centre of Birmingham, are being quite extensively modernised. But there are also widespread areas of mean streets, twilight housing, and plain slums. The atmosphere is one of activity, prosperity and growth, but a great deal of congestion and decay as well. The physical scene, in spite of very considerable current efforts at improvement, is still largely dominated by the unlovely heritage of an industrial revolution based on coal, iron, steam, canals and railways—the more so perhaps because the economy here, as in many of the towns nearby, still rests primarily on the production and working of metals. This combination of growth and congestion, in an area which although highly prosperous is still much in need of physical renewal, is the conurbation's main problem—and the region's too.

(b) The Coventry belt

Across ten miles of countryside to the east of the Birmingham conurbation lie the City of Coventry with the new University of Warwick and a half circle of related smaller towns clustered round from north to south—Nuneaton, Bedworth, Rugby, Kenilworth, Leamington and Warwick itself. This Coventry belt in recent years has had even faster population growth (the total is at present around 600,000) than Birmingham and the Black Country. Like the latter conurbation, it is largely dependent on the metals industries, but with a greater preoccupation with vehicles and aircraft. Here again the atmosphere is one of activity, prosperity and growth. There is not, of course, anything like the same scale of congestion and decay. The centre of Coventry has been very largely renewed since the war, and the city's expansion along with that of the towns around it

has not reached the point—yet—of creating a continuous built-up area. Warwick and Kenilworth still retain much of their individual historic character. Leamington has kept much of its elegance and attractiveness as a shopping resort in its own right. There are problems, but unlike those of the Birmingham conurbation they look like being largely soluble within the area itself.

(c) *East Shropshire (including Coalbrookdale)*
Similarly across ten miles of countryside to the *west* of the Birmingham conurbation is the East Shropshire cluster of settlements which includes Wellington, Oakengates and Dawley, lying across the road to Shrewsbury and abutting on to the Severn Valley. East Shropshire's present population is around 120,000. Here at Coalbrookdale developed some of the industrial revolution's original sources of strength—the smelting of iron with coal, the fabrication of iron for big structures, and the large-scale use of canals to move coal and iron and their products about the country. These developments ultimately did less for Coalbrookdale and East Shropshire itself than for the Black Country and Birmingham who were better placed to exploit and build on them. But there is some manufacturing activity there, partly linked with that of the conurbation; and with the current development at Dawley of a new town designed to relieve some of Birmingham's congestion the historical process could begin to repeat itself in reverse, with an area once seminal to the conurbation's modern industrial growth becoming increasingly its offshoot.

(d) *South Staffordshire, Worcestershire, and West Warwickshire, outside the conurbation*
To the north and south of this East Shropshire-Birmingham-Coventry chain, and outside the proposed Birmingham green belt mentioned above, are such freestanding towns as Stafford, Lichfield, Tamworth and Burton-upon-Trent; Kidderminster, Bromsgrove, Droitwich, Redditch, Evesham and Worcester City; Stratford-on-Avon; and the wide stretches of often beautiful countryside, dotted with small market towns and villages, that lie between. The total population of this ring of industrial and country districts is nearly a million. Some of the places mentioned—notably Burton-upon-Trent, Kidderminster and Redditch (the latter now to be expanded as a new town) are themselves industrial centres of long standing. Others—notably Stafford—have developed a considerable industrial importance in recent times. All, along with their particular local features and problems, have one thing in common: their development prospects have already been and will continue to be influenced very powerfully by what is done—or not done—about the continued growth of population and activity generated by the Birmingham conurbation.

THE POPULATION TRENDS

The high rate of growth

13. For the conurbation is the active core of what since 1951 has been the fastest-growing, in terms of population, of any region—Northern Ireland apart. The people of the West Midlands in the early nineteenth century numbered barely one million. There are now nearly five million—which means a rise from barely seven per cent to over nine per cent in the region's share of the total population of the United Kingdom. But more important is the recent trend. Between 1951 and 1964 alone, the region's percentage share rose from 8·8 to 9·2—in absolute terms from nearly 4·4 million to just over 4·9; also its proportion of people of working age is now higher and (with the exception of Northern Ireland) its proportion of retired people now lower, than in any other region of the United Kingdom. This special population structure has been associated with a high crude birth rate, a low crude death rate, and accordingly a very high crude rate of natural increase—that in the conurbation being higher than in any other conurbation bar Merseyside.

The distribution

14. This growing population has of course long been most thickly settled in the central division and especially in the Birmingham conurbation itself where the mean density in 1961 was 13·6 persons per acre (compared with 1·5 in the region as a whole, 1·25 in England and Wales as a whole, and 17·7 in Greater London). And it is this central division that has accommodated the bulk of the region's especially rapid population growth in recent years—though not so much now in the heart of the Birmingham conurbation itself as on its fringes and also (markedly) in the Coventry belt and in one or two of the free-standing industrial towns like Stafford. The populations of the rural west and of North

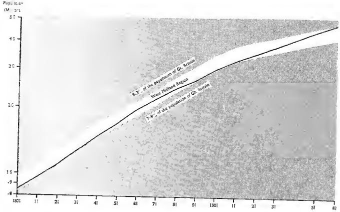


Fig. 4. Great Britain and the West Midland Region : population changes : 1801-1961
During the 160 years since the first Census in 1801 the proportion of the total population of Great Britain living in the West Midlands has ranged between 7·9% (in 1821) and 9·3% (in 1961). In the diagram the population of the West Midland Region at each Census is plotted on a logarithmic scale; populations equivalent to 7·9% and 9·3% of the population of Great Britain as a whole at each Census are also depicted. The diagram thus affords a comparison between rates of population growth in the West Midlands and in Great Britain and shows how the Region's share of the country's population has fluctuated

Staffordshire have by comparison grown but slowly—the main redistribution there being inwards to the larger towns of Hereford and Shrewsbury from the agricultural areas of the rural west, and in North Staffordshire outwards from the Potteries area itself to the more attractive places on its outskirts.

15. This continuing creep in the distribution of the region's rapidly growing numbers—from the outer towards the more central and already populous areas of the region, but also from the inner parts of the urban areas towards their outer parts and fringes—constitutes one of the most significant features in the region's development. It shows a retentive and pulling power in the big industrial centres, a resultant tendency to congestion and complexity inside those centres, and a consequent heavy pressure from within them for expansion of their built-up areas. Where any of the urban centres concerned is already big, congested, still much in need of physical renewal, and bounded by countryside widely thought to be worth keeping open, there are the makings of a frustrating or even explosive situation. That is what has been happening with the Birmingham conurbation and especially with Birmingham itself.

The scale and effects of migration

16. Although this big growth in the region's total numbers has been directly due far less to net immigration than to natural increase, migration in the past has nevertheless played a significant part in the population structure and trends. Over the period 1931–63 (ignoring the war and early postwar period for which meaningful figures are not available), only the South East and South West regions (the latter being a notable retirement area) received in percentage terms bigger net increases of population from this cause. The absolute net immigration figure for the West Midlands over the whole period was about 200,000—compared with a net *outward* migration total of 67,000 over the period 1921–31. And while this net immigration has been quite small annually in relation to the total population, the *gross* movements in and out have been very considerable. There is every reason to believe that the gross movements in have been mainly associated with attraction to jobs, for there is normally a strong correlation between migration and job availability (variations in net migration into the West Midlands over the years have been pretty well in line with employment changes) and the small proportion of elderly people in the region indicates that migration for retirement has been mainly outward. It follows from this, that migration in the past has been partly responsible for the region's present age-structure and for the high rate of natural increase which flows from it.

17. The West Midlands therefore does seem to owe something of its recent growth and dynamic to past inward migration—from the early nineteen thirties when the depression hit other regions so much harder, until the end of the immediate postwar period. The indications are that the main contributing areas were the Irish Republic and Northern Ireland rather than Scotland and the North of England. But it must be noted that the region's net inflow has not been very marked in more recent years (and incidentally it has been mainly of males). Over the period 1951–56, indeed, inward and outward migration remained only just about in balance—fluctuating slightly from year to year in line with variations in the employment situation relative to other regions. From 1956 to 1964 there was a clear net movement inward again, to the tune of about 100,000 people over the whole eight-year period. But of this accretion it is estimated that well over half, and perhaps as much as threequarters, was due to immigrants into the Birmingham conurbation and Coventry from the Commonwealth, the Colonies and Protectorates, and the Irish Republic—with West Indians, Pakistanis and Irish predominating. After 1962—the year of the coming into force of the Commonwealth Immigrants Act—the net inward flow dropped very significantly. And by 1964 the net flow appears to have been reduced to a very moderate level indeed—though of course no great weight should be attached to one year's figures. In spite of its high level of prosperity, therefore, the region cannot be regarded as automatically capable of recruiting additional population from other parts of these islands or elsewhere.

The population situation in brief

18. To sum up. The numbers in the region, and particularly in its central urban areas, have recently shown a very marked growth through natural increase encouraged and supplemented by some net immigration. There is currently a high proportion of people of working age and a low proportion of the elderly. The population is

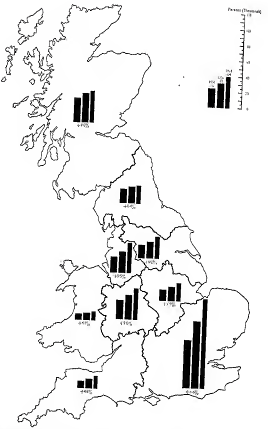


Fig. 5. Civilian population : natural increase : 1951-56, 1956-61 and 1961-64
The heights and widths of the columns are proportional to the mean annual natural increase and to the length of the period respectively. Thus, volume of natural increase is represented by the area of the columns. Percentage growth over the period 1951-64 as a whole is given in figures. The total natural increase 1951-64 in Great Britain was 3,307,000 or 6·8% (see Appendix, Tables 6-9)

therefore likely to grow considerably further in due course. Whether it grows at the same high rate as in recent years—particularly as respects its working-age element—will depend to some extent on future trends of prosperity and migration as well as on natural increase changes.

THE GENERAL TRENDS IN EMPLOYMENT

19. Meanwhile, whatever the prospective rate of expansion of its total or its working population, the region is still showing, as it has shown for many years, a rapid growth in the number of jobs—an increase of 13 per cent, in fact, between 1953 and 1963, as compared with 9 per cent for Great Britain as a whole.

20. In 1963, the broad structure of employment in the region was as shown in Text Table I.

Table I **Employment in the Midland Region—1963—by broad categories of industry**
(Estimates of employees at mid-year)

	Number 000	% of Total Employment in the region	Equivalent Gt. Britain % figure
Primary Industries	96	4	5
Manufactures	1,188	53	38
Other Industries and Services	971	43	56
TOTAL	2,255	100	100

It will be seen that this is essentially a manufacturing region—West Midlands employment in this sector being 53 per cent of the whole, as compared with a national average of 38 per cent. In the manufacturing industries the number of employees in employment rose by 12·5 per cent (males) and 4·5 per cent (females) during the ten years up to 1963. These are not such high percentage rates of growth as those in the manufacturing industries sectors in the North Midlands and South East and South West, but they are very much higher than the figures (10·6 and 1·9) for Great Britain as a whole. And in the actual *numbers* of manufacturing jobs added during the period (i.e. the net result of all increases and decreases in employment) the West Midlands took second place only to the South East.

21. Moreover, during the same period there has been an even more marked growth in employment in the Other Industries and Services Group—21 per cent for males and 32·1 per cent for females, compared with Great Britain figures of 12·8 and 25. In this field, indeed, the West Midlands growth has been faster than that of any other region—though it is of course in part a measure of the extent to which the region has still to catch up on services with South East England.

22. There are also the primary industries—agriculture and mining and quarrying. In these, the numbers employed in the region have for some years been declining. But the decline has been no greater than the average decline for Great Britain as a whole, and in any event the region's dependence on this category of employment has for a long time been quite small.

23. Not surprisingly in these circumstances, unemployment in this region, already very low in 1953, has remained low since—generally following the national pattern but at a lower level, except during the recessions in the car industry in 1956 and 1961. The ratio of unfilled vacancies to wholly unemployed, for what this is worth as a regional statistic (not all vacancies are of course notified and not all persons seeking jobs are registered as wholly unemployed), has been high, exceeded consistently only in the South East and South West Regions. The regional employee activity rate* has been the highest in the country—and from 1960 for women as well as for men. The big growth in the number of people in the working age group has encouraged the expansion of employment, and the jobs situation has been such as to retain and attract the labour. Only in North Staffordshire and in the agricultural areas of the rural west has there been anything short of these booming employment conditions, and even there the competition for skilled men is still high.

24. Not surprisingly also, as a mixture of cause and effect, the main employment growth has been in or near those areas where the main expansion of population has taken place—notably the fringes of the Birmingham conurbation, the Coventry belt, and some of the free-standing towns outside. The Potteries have

* Regional employee activity rates express the estimated number of employees at mid-year—including part-time workers and registered unemployed—as percentages of the home population aged 15 years and over. They do not take account of regional differences among the retired or self-employed or the numbers at school and other persons not available for employment.

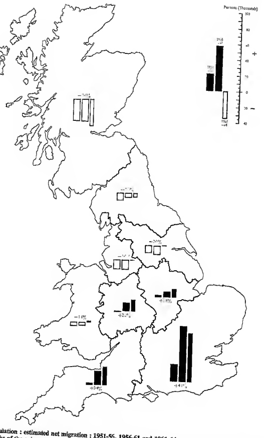


Fig. 6. Civilian population : estimated net migration : 1951-56, 1956-61 and 1961-64
The heights and widths of the columns are proportional to the mean annual net gain or loss by migration and to the length of the period respectively. Thus, volume of net migration is represented by the area of the columns. Percentage change over the period 1951-64 as a whole is given in figures. The total net migration 1951-64 for Great Britain produced a gain of 268,000 or 0·6% (see Appendix, Tables 6-9)

lagged well behind, and although there have been some very sizeable percentage increases of employment in the rural west, these have been mainly concentrated in the county towns of Shrewsbury and Hereford, and in any case have not been large in absolute numbers.

THE REGION'S ROLE IN THE NATIONAL ECONOMY

25. This rapid growth of employment suggests that the West Midlands has recently more than maintained its long-established position as a strong centre of the nation's industry. And over and above the growth in employment within the region itself there has been a very substantial stimulus of growth in other regions by the diversion to them of jobs which might otherwise have been created in the West Midlands, in the context of distribution of industry policies designed and administered to that end by successive Governments.

THE GENERAL PICTURE

26. This adds up to a centrally situated region that has been showing a faster expansion in population than any other region in the country; supplementing its high natural increase by some net immigration; using this rapidly growing population at a high rate of activity to produce marked further industrial growth within the region itself as well as elsewhere; and receiving the main resulting pressure for accommodation of people and work in and around its principal existing urban centres—themselves mostly already faced with problems of congestion, renewal and sprawl.

27. That, at least, is the broad picture. In future studies it should be possible to provide a better one by drawing on a wider range of up-to-date inter-regional statistics, particularly on social aspects. On these more detailed matters it is possible at this stage only to record some impressions—a series of crude snapshots from various angles—based largely on information collated by other workers over differing recent years and admittedly incomplete. These suggest a region fairly near to the national average in most things and with many social attributes of the industrial north as well as of the south; incomes per head rather above the national average and household incomes quite markedly so; relatively low national assistance payments, but also relatively few personal incomes beyond £1,500; higher than average household spending on most things and in particular on cars and food, but lower than average spending on services; lower than average rates of drunkenness, indictable offences, suicides, and children in care; lower than average proportions of children staying on at school or getting university awards, along with higher than average enrolments in sandwich, part-time and evening courses; bigger than average lists per family doctor and dentist, and less than average spent on prescriptions, fewer than average absences from work for sickness or injury, and fewer people in employers' sick-pay schemes; fewer than average hospital births, and higher than average maternal death rates and perinatal mortality.

28. Meanwhile what is quite clear is that *in terms of employment* the West Midlands as a whole is expanding vigorously. How have these conditions developed? Can the region expect them to develop still further? How do their development, and the means employed for promoting and coping with them, tie in with the region's other needs and with the needs of other parts of the country? That is what this study is largely about. It must start by looking a little more closely at the region's economic activity.

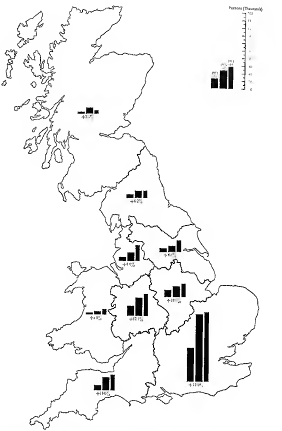


Fig. 7. Civilian population : total change : 1951-56, 1956-61, and 1961-64
The heights and widths of the columns are proportional to the mean annual total change and to the length of the period respectively. Thus, volume of change is represented by the area of the columns. Percentage growth over the period 1951-64 as a whole is given in figures. The total increase 1951-64 in Great Britain was 3,986,000 or 8·2% (see Appendix, Tables 6-9)

2 The Region's economic activity

ITS INDUSTRIAL DEVELOPMENT HISTORY

29. The fact that since the war the West Midlands has had very full employment and high activity rates along with its rapid growth of population is of course not necessarily a proof of health in the region's economy or of efficiency in all its production and services. But it is a pretty clear indication of a persistently high level of business demand and confidence, more pronounced and long-standing than in any of the regions to the north and west. What are the local circumstances which have contributed to this? The region's central position and useful natural resources must have played a part. But what really matters is the way they have been exploited—the nature and flexibility of the economic structure that has been built on them; the man-made as well as the natural advantages.

30. For this one must first look at the region's long and fairly continuous history of industrial expansion and diversification since Birmingham and Coventry first became important. This story of the rise of a modern industrial complex step by step from simple beginnings must be rehearsed for an understanding of what makes the West Midlands tick today.

31. It started in the fourteenth century with the emergence first of Birmingham and then of Coventry as market and textile towns. By the early Tudor period their advancing prosperity was being supported also by tanning, saddlery and harness making at nearby Walsall, and glassware production at Stourbridge. In the sixteenth and seventeenth centuries came a growth in ironstone working and the manufacture—in Birmingham itself, in Redditch, and in what is now the Black Country—of locks, scythes, nails, needles, cutlery and general smithsware. The skills thus established were soon applied to more advanced products—guns, buttons, buckles, brassware and toys. Then in the early eighteenth century came the big breakthrough—Abraham Darby's development in Coalbrookdale of a practical method of smelting iron with coke instead of charcoal—followed by the development of the steam engine by Boulton and Watt in the Soho Works in Birmingham itself. The age of coal and iron and steam arrived—and modern trade and warfare to create markets for their products. Birmingham and its surroundings had the famous Staffordshire coal seam and local ironstone, the limestone and refractories to exploit them, and the industrial skills and habits to exploit them well. There soon followed the canals, and then the railways. Large-scale metal production and engineering were developed and meanwhile the existing local industries grew still faster. This was the heyday of British industrial leadership of the world, and the Birmingham conurbation was a major source of its strength.

32. There was rather slower growth towards the end of the nineteenth century, following the exhaustion of some of the local coal and much of the local ironstone, and the development and production elsewhere of cheap mild steel and other products. But after the first world war the growth speeded up again, for this was the age of road locomotion, electricity, aircraft, and—latterly—a high level of defence spending, and the region with its wide variety of factories and skills in virtually all the metals industries, heavy and light, was well placed to exploit the new demands. Birmingham and the Black Country remained in the lead, but the Coventry belt had joined in too, until its ribbon and silk weaving and clock and watch making were far outstripped by its manufacture first of sewing machines and cycles and then of machine tools, aircraft, electrical plant, cars, and man-made fibres. Stafford developed from a country town to a centre of

electrical engineering. Away to the west at Coalbrookdale new factories rose up to supply these areas and others with such things as batteries and vehicle wheels. And the tide of the newer manufacturing industries lapped out to Leamington, Worcester, Shrewsbury and even Hereford to augment their traditional trades.

33. Meanwhile, up in the north of Staffordshire, arose the Potteries. The small-scale making of Staffordshire slipware from local materials in the seventeenth century gave place in the eighteenth to large-scale production of pottery based on the development of china clay brought in by canal, and on the use of local coal. This was the Wedgwood era. Then with bone china perfected by Spode in the early nineteenth century, the industry continued to expand and innovate, based increasingly on skill rather than on local resources, until today the local coal is less important to the production processes than gas, oil and electricity, and even the characteristic bottle kilns have now largely disappeared. Both pits and pots in this area are still fairly prosperous, though not now growing in terms of employment.

THE STRENGTH OF ITS PRESENT INDUSTRIAL STRUCTURE

34. Even in the Potteries, however, there has been no question in recent years of actual or incipient unemployment on any major scale. Neither here nor elsewhere is any large part of the region's economy obviously facing a drop in activity on such a scale as to imperil the general prosperity. There are no big patches of industry in sharp decline, either in terms of employment or of demand—nothing comparable, for example, with what happened not long ago with cotton textiles in the North West or shipbuilding and coal in Scotland and the North East. The region depends to only a very modest extent in employment terms (four per cent) on the primary industries, in which growth has ceased. It lives to a very marked extent (53 per cent in employment terms) on manufacturing industries, and in particular on the metals, engineering and electrical goods, and vehicles industries which have good growth records and sound prospects and support a possibly unrivalled regional pool of highly versatile skilled labour. And the way the manufacturing industries have developed in this region has created a position in which there may now be both scope and demand for a substantial additional growth in *non*-manufacturing industries and in services, to diversify and strengthen the regional economy still further. There are local problems. Skilled labour is still in short supply. But the industrial structure as a whole is strong. Indeed, it appears probable that it is this structural advantage—of having on the one hand no major declining industries, and on the other hand a higher than average proportion of what nationally have been growing industries

Table II **Pattern of employment 1953–63 (Great Britain and the Midland Region)**
(Estimates of employees at mid-year)

S.I.C. Order	*The West Midland region*		*Percentage changes in employment 1953–63*		*Ratio of the West Midland region's dependence on each category to Great Britain's dependence* *
	Number employed 1963 (000's)	*Change in number employed 1953–63 (000's)*	*The West Midland region*	*Great Britain*	
Agriculture, forestry and fishing	43	−11	−20	−25	0·8
Mining and quarrying	52	−17	−25	−22	0·8
Manufacturing‡	1,188	+108	+10	+8	1·4
Construction	137	+35	+35	+17	0·9
Services	834	+144	+21	+15	0·7
All industries	2,255	+259	+13	+9	1·0

*These figures are obtained by dividing the 1963 employment in each category of industry in the region by the regional total and then dividing this ratio by the comparable ratio for Great Britain.
‡See text Table VI.

Fig. 8. Ministry of Labour regions (as constituted in 1961)
Employment statistics are not generally available for economic planning regions in England. Ministry of Labour regions, as constituted in 1961, are broadly equivalent to regions as used for the 1961 census

—that mainly accounts for the region's prosperity at present, rather than any demonstrated superiority in the efficiency of the region's industries themselves. Text Table II above gives the breakdown by categories of industry: and a brief account follows, with particular reference to employment, of how this industrial structure is made up.

THE PRIMARY INDUSTRIES

Agriculture

35. Agriculture (including horticulture) at present operates over more than three-quarters of the region's total area. Much of the land is in the medium to very good category, and about one-twelfth of it is of very high quality. The best land —fertile and easily cultivated—lies mainly in the south and south west of the region, i.e. in the Vale of Evesham, the Teme and Severn Valleys and the Hereford Plain. Some is found also to the east of Kidderminster and between Lichfield and Tamworth, and there is some land which is nearly as good in the Shrewsbury—Wellington—Newport area.

36. The land is worked by about 40,000 regular employed workers and 35,000 occupiers of agricultural holdings: and of course there are many workers in trades servicing agriculture. Increased mechanisation, higher productivity and amalgamation of holdings are continually reducing agriculture's labour demands. The number of regular workers declined by over 10,000 between 1953 and 1963 and is expected to fall still further for many years to come. Over the region as a whole, the regular labour force is now only about 2 per cent of the total number of employed persons (the equivalent figure for the country as a whole is about 2½ per cent) though in parts of the rural west the percentage of the employed population working in agriculture is as high as 50 per cent, and even in parts of Warwickshire and Staffordshire it rises locally towards that level. However, the industry's place in the regional economy cannot be assessed entirely in terms of employment. The region is well-known for its beef cattle and sheep; it grows large quantities of wheat and barley; and in 1964 it produced enough potatoes for all its own needs, and enough milk to meet its own high requirements for liquid milk, plus almost as much again for the production of butter and cheese or for export to other regions. It is also famed for its production of fruit and hops and provides nearly one-fifth of the total acreage under fruit in England. Its farming serves as the basis for livestock marketing (e.g. at Bishops Castle, Craven Arms and Kington); canning and freezing (e.g. at Hereford); sugar-beet processing (e.g. at Wellington and Kidderminster); and the region's farm machinery, fertiliser, feeding-stuffs and flour industries.

37. The reduction in that small part of the region's labour force which finds employment in agriculture does not constitute a regional problem. There could, however, be a problem indirectly in the rural west, where a continuing trend of depopulation in the countryside and small towns might in time weaken the social fabric—including the service element in the local economy—and so make it more difficult for agriculture to operate efficiently. A solution might then have to be found in a new kind of pattern for these rural areas, complementing agricultural with other appropriate uses based on a build-up of services in selected country towns chosen with an eye to their communications.

38. If one of the problems connected with the agricultural industry in the remoter areas may be depopulation, a more common problem for it in many parts of the region is that of keeping its best land. The rapid growth of the region's population and jobs must be accommodated somewhere. There are limits to what can be done within already built-up areas. There is continuing pressure by both public and private developers to use land at present under cultivation. And there is often also a corresponding willingness by owners of the land to let it go for the cash. To the extent that the land thus taken or sought for building will often be of good versatile quality a difficulty could arise in reconciling current national policy for keeping good farmland in cultivation with the promotion of housing and industrial development that might otherwise be considered to be in the region's economic and social interests. Such a problem arises in many parts of the country, but not least in the West Midlands where a complex of big and rapidly growing industrial communities is surrounded closely by farming country. Its relevance to the region's economic structure is as a reminder that agriculture is an industry which, while playing a relatively small direct role in the region's economic effort, can also present special

problems for regional growth. By the same token, agriculture, uniquely among the region's industries, has the function of helping to safeguard and maintain physically an important item in the region's amenities—its open countryside.

Mining and quarrying

39. Mining and quarrying are equally modest users of labour in this region, with only some 53,000 or about 2 per cent of the region's total labour force (which is slightly lower than the proportion in the country as a whole and lower still than the proportion in other major industrial areas). As with agriculture, employment has been declining and is expected to go on doing so—due in part to competition for labour from expanding manufacturing industries. The fall in the region since 1953 has been over 17,000, which shows a slightly steeper rate of decline than the national rate. Again, as in agriculture, because of the relatively small scale of the industry in this region this decline is not in itself a significant problem for the broad regional economy.

40. And equally, the existence of these industries has had, and is having, a wider influence on the region than their proportion of the region's employment might suggest. For the local availability of these mineral resources is an asset to the region in general, to the extent that its industries and services continue to benefit directly or indirectly from the use of local clays and sands for refractories, of local building and road-making materials, and above all of local coal either for direct consumption or through the region's electricity and gas supplies.

41. Coal is indeed by far the most important of this group of mining and quarrying industries in the region, employing some 48,500 people and currently producing over 14 million tons a year—nearly a twelfth of the national output—mainly in the Potteries area (where it is the second biggest activity), in Cannock Chase just to the north of the Birmingham conurbation, and in the Coventry belt in Warwickshire. Depending on decisions that may be taken about the position of coal in relation to co-ordinated energy policy, the prospects are that output will be maintained at around the present figure for some years. It could be expanded if necessary, for the reserves are still quite sizeable and there has been substantial capital modernisation. But a limiting factor will be labour supply, in spite of steadily increasing productivity and a continuing effort to transfer trained miners into the region from declining coalfields elsewhere.

42. On the other hand, past workings of minerals in this region have in many areas left a great deal of dereliction—in the form of spoil heaps, cluttered sites, and land and buildings damaged by subsidence. Quite apart from the ugliness, this has to some extent hampered—and still hampers—the free expansion of the region's other economic activities, both directly in its wasting of what might otherwise be useful land for new industrial development, and indirectly through the limitations it has placed on the location of houses for the region's working population.

43. Continued extraction of minerals will in some parts of the region continue to have these inconvenient effects—even if by more co-ordinated controls and programming the inconvenience can nowadays be considerably reduced. Interference with other land uses could become particularly marked if there were to be any exploitation of those areas in Staffordshire, Shropshire and Warwickshire where there are substantial reserves of coal workable by opencast methods.

Primary industries summed up

44. In short, mining and quarrying like agriculture play an influential if complicating role in the region's life and a dominating role in certain localities, but because of their relative scale they contribute neither a major strength nor a major weakness to its economic structure. Their special features and problems have got to be taken into account, but their future prospects whether of growth or decline are of only small significance for the economic future of the region as such.

THE MANUFACTURING INDUSTRIES

The dominance of the metals and engineering industries

45. What is of greatest importance to the region is its manufactures. Some 1,190,000 or 53 per cent of its work-people are in manufacturing industry compared with 38 per cent in the country as a whole. Their numbers expanded between 1953 and 1963 by 9.9 per cent compared with a Great Britain expansion of 7·6. In employment terms, nearly three-quarters of this manufacturing industry (as compared with only about a half

in the case of the country as a whole) is concerned with the production or use of metals—metal manufacture, engineering and vehicle industries. It is the predominance of these industries, employing in all about 845,000 people, which constitutes the special characteristic of the economy of the West Midlands. Most of them are to be found in the region's central division and especially in the Birmingham conurbation and Coventry, but there are some also in such areas as Stoke-on-Trent, Shrewsbury and Hereford.

46. By comparison, the employment in the other principal manufacturing industries is small—though absolutely it is still quite considerable. For example, some 83,000 people in the region are employed in bricks, pottery, glass, cement, etc. (the pottery industry in North Staffordshire probably accounting for some 48,000). Food, drink and tobacco (notably cocoa and confectionery in Birmingham, brewing in Burton-upon-Trent, and various food products in the rural west) employ some 73,000 people. Textiles, notably carpets and man-made fibres, employ some 37,000—mainly in Kidderminster and Coventry. Chemicals, plastics, etc. employ about 27,000 (mainly in Birmingham and the Black Country), and other manufacturing industries (of which rubber in Birmingham and North Staffordshire is probably the most important) about 41,000.

The complexity within the metals and engineering field

47. The metals and engineering industries in this region form a highly complex structure with a variety of inter-related parts. Many of the firms in this field are concerned with the early stages of metal production—the refining or smelting of the metal, the forming of the refined material into shapes (for example, tube and wire manufacturing, and steel rolling) and the machining and treatment of those shapes (for example, capstan repetition work and electro-plating). These activities are carried on mainly in the Birmingham conurbation. The remainder are concerned with sub-assembly of components (such as vehicle components), the assembly of final products (such as motor cars and machinery), or the general finishing or "fashioning" of specific products. Very broadly, over one third of the employment in the metals and engineering industries in the region is concerned with the early stages of metal production: nearly one third is engaged on the production of vehicles and components: and one third on other engineering, electrical, and metal products.

48. The line distinguishing the early stages of metal manufacture from the later stages is not clear-cut; indeed one of the elements in the complexity of the industries in this field is the way in which different processes are linked together—not always within the same factory. In consequence the available statistics cannot be analysed so as to distinguish the earlier and later stages with any precision. But a rough guide to the industries which go to make up the earlier stages of metal production is given in Text Table III.

Table III **Employment in the Midland Region in the earlier stages of the metals and engineering industries.**

(Estimates of employees at mid-year)

S.I.C. Order and Minimum List Heading	*Employment in 1963*
Order V—Metal Manufacture	
311 Iron and steel (General)	26,500
312 Steel tubes	25,800
313 Iron castings etc.	35,000
321 Light metals	19,200
322 Copper, brass and other base metals	32,400
Order IX—Metal goods not elsewhere specified (PART only)	
393 Bolts, nuts, screws, rivets, etc.	29,300
394 Wire and wire manufactures	6,700
399 Metal Industries not elsewhere specified	153,600
Total	328,500

The last minimum list heading in this Table "metal industries not elsewhere specified" includes products such as springs, drop-forgings and pressings, which clearly belong to the earlier stages of the metal and engineering industries, but it also covers some products, such as metal furniture and hollow-ware, which do not.

49. Much of the output of the earlier stages of production goes to firms in the region which are engaged in the later stages—for further processing, sub-assembly and final assembly—and this flow of parts and components is one of the characteristic features of the local industrial structure. This feature is particularly marked in the Birmingham conurbation, where numerous

firms at various stages of the production process are to be found cheek by jowl. But the metal products, parts and components made in the conurbation and other parts of the region go not only to local and other Midland assemblers, etc., but to industry throughout the country—and in some instances throughout the world.

50. This predominance of the earlier stages of metal and engineering production marks the Birmingham conurbation off from the country's other conurbations, where the metal and engineering industries consist very largely of the later stages of production. The West Midlands industries concerned are also notable for their "vertical disintegration"—that is, a situation in which various processes which elsewhere would be commonly undertaken within one factory are divided among a number of specialist firms. This specialisation by processes adds further to the flows of goods between one factory and another. The firms engaged in the earlier stages of metal production and the firms specialising in a narrow range of processes provide a valuable base for the assembly and other metal and engineering industries.

Vehicles, etc.

51. One major group within the metal and engineering industries is that dealing with the manufacture of vehicles and their major components. Some 206,000 workpeople are directly employed on vehicles and aircraft production, equal to over nine per cent of the region's total labour force. And when account is taken of associated activity as well, like the production of tyres, batteries, electrical components, castings, pressings, forgings, springs, washers and nuts and bolts, by firms in the region not themselves classed as vehicle manufacturers but nevertheless contributing to the final products, the proportion of the region's employment connected with vehicle production might be twice as much.

52. Text Table IV shows how many people are employed in the vehicles group, as defined for statistical purposes.

53. The most important part of the vehicles group in the West Midlands is, of course, the manufacture of motor vehicles. Birmingham is the main centre, with about half the total employment when account is taken not only of assembly but also of the manufacture of components including tyres and electrical products. Coventry is the second largest centre, production there including tractors and buses as well as cars and lorries. As might be expected in a region notable for the large quantities of parts and components which it produces, the region accounts for more of the country's production of motor vehicle parts and components than of final assemblies.

Table IV **Employment in the Midland Region in the vehicles group (SIC Order VIII)**
(Estimates of employees at mid-year).

Minimum List Heading	*Employment in 1963*
381 Motor vehicle manufacture	150,100
382 Motor cycles, three-wheel vehicles and pedal cycles	13,800
383 Aircraft, including repairing	34,000
384 Locomotives and railway track equipment	1,600
385 Railway carriages and wagons and trams	4,800
389 Perambulators, hand-trucks, etc.	2,100
Total	206,400

54. Despite the vigorous growth of production in the motor vehicle industry there have been marked fluctuations in activity during the last decade. The trend of employment in the vehicles group over the period 1953 to 1963 has shown a much less marked increase in the region than in Great Britain as a whole (1·7 per cent as compared with 11·2). This was due partly to a decline —which is not likely to continue at the same rate —in cycle, motor-cycle and railway vehicle manufacture, and partly to the establishment in Scotland, Wales and the North West of new motor vehicle plants some of which would certainly have been built in the West Midlands itself, near their parent establishments, but for Government intervention. Nevertheless, given a continuing high demand for motor vehicles, at any rate for many years ahead, the industry must be counted as a strong element in the region's future economy, even though employment may remain at much the same level rather than expand.

55. The aircraft industry—which has operated mostly at Coventry and also at Wolverhampton —forms part of the vehicles group. There have of course been considerable fluctuations in its fortunes here as elsewhere. The uncertainty about it nationally makes it difficult to assess the future prospects for it in the region. But this is clearly not a field of activity on which the West Midlands as a whole is strongly dependent.

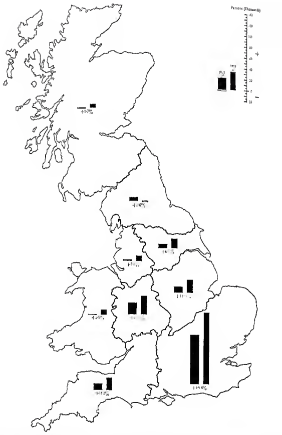


Fig. 9. Employment : total change by Ministry of Labour regions : 1953-59 and 1959-63
The heights and widths of the columns are proportional to the mean annual changes in estimated numbers of employees employed at mid-year and to the length of the period respectively. Thus, volume of total change is represented by the area of the columns. Percentage growth over the period 1953-63 as a whole is given in figures. The total increase 1953-63 in numbers employed in Great Britain was about 1,883,000 or 9·1% (see Appendix, Table 17)

Other engineering, electrical and metal goods

56. The other major groups within the metals and engineering field consists of the engineering, electrical goods and metal goods industries, which between them have been responsible for the greater part of the region's strong growth in manufacturing employment in recent years, and at present provide about 300,000 of the region's jobs—thus assuming about twice as great an importance in the employment structure in the West Midlands as they do in the country as a whole. Their main elements are described in the paragraphs 57—61 whicb follow.

57. Machine tool production is one of the most important. The region's activity in this field is centred in the Birmingham conurbation and Coventry, and accounts for about one-third of the total employment in machine tool production in Great Britain. There has been strong if somewhat erratic growth in recent years, and the industry's prospects of further growth can be reckoned good.

58. Electrical engineering is another major feature in this region. Apart from electrical components for motor vehicles and aircraft, already mentioned, its products range from wires and cables and communications and electronic equipment to electric motors, switch-gear and generating plant. The industry is widespread, being mainly at Stafford, Rugby, Birmingham and Coventry, but other centres of note are Kidsgrove, where computers are made, Newcastle-under-Lyme, Wolverhampton and Halesowen. Growth in this sector in the West Midlands bas been strong, and this trend is expected to continue.

59. Tbe rest of the engineering industry in the region is very diverse. It includes machinery and industrial equipment of numerous kinds—boilers and plant for nuclear power stations, fabricated steelwork, mechanical handling equipment, weighing machinery, industrial control gear, office machinery, and ball bearings. Growth has been considerable in this sector too, and judging by the probable demand for this kind of product it is likely to continue to be so.

60. Along with these major metal and engineering industries there are the many smaller and traditional metal trades—guns and jewellery in Birmingham, chain making in Cradley Heath, locks and keys in Willenhall and Wolverhampton, and needles and fish-hooks at Redditcb—to give only a few examples. They still bave a real part to play in the region's economy.

61. Total employment in this sector of tbe engineering, electrical goods and other metal goods group is shown in Text Table V.

Table V Employment in the Midland Region in the other engineering, electrical goods and metal goods industries

(Estimates of employees at mid-year)

S.I.C. Order and Minimum List Headings		*Employment in 1963*
Order VI—Engineering and Electrical Goods		
332 Metal working tools and 333 Engineer's small tools and gauges	42,100	
341 Industrial Plant and Steelwork	23,100	
Other machinery and mechanical engineering products*	97,200	
361 Electrical machinery . .	51,100	
363 Telegraph and telephone apparatus . . .	14,700	
Other electrical products and appliances‡ . .	61,900	
Order Total		290,100
Order VII—Shipbuilding and marine engineering		600
Order IX —Other Metal Goods (Part only) (Tools, cans and jewellery etc.)† . . .		19,800
Total . . .		310,500

*M.L.H. 331, 334—339 and 342—352.
‡M.L.H. 362 and 364—369. †M.L.H. 391, 395 and 396.

The other manufacturing industries

62. Although the metals and engineering industries are dominant, the other manufacturing industries together employ 342,000 people, or 15 per cent of all employees in the region. Most of tbese other industries experienced during the last ten years an expansion in employment terms broadly in line with the national rate of expansion in the same fields. In the case of textiles there was some expansion in the region in male (but not female) employment in spite of a general decline nationally. Employment in a few industries sucb as clothing, furs, leather and footwear, declined in the region, but at less than the national rate. The only contraction of any great significance in the West Midlands has been in the bricks, pottery, glass and cement group, which since 1953 bas reduced its employment by over 12 per cent.

This reduction is largely attributable to the pottery industry, where mechanisation and improved firing methods have resulted in considerable labour economies. Further economies from continued modernisation, and various overseas marketing difficulties in an industry which has been materially dependent on exports for its prosperity, could well cause a further decline in employment during the next decade, with consequent problems of adjustment for North Staffordshire where most of the industry is situated.

Manufacturing industries summed up

63. Text Table VI sets out some of the key figures about the manufacturing structure of the region and the changes in employment which have taken place during the last decade.

64. The general picture is of a very high proportion of the working population engaged in a range of manufacturing activities in which those with a record of strong recent employment growth predominate (notably vehicles, machinery and other metal goods); those with a record of smaller growth in employment—or even actual contraction—are not a cause of any major anxiety for the region's future; and those which have very large labour forces but a gloomy future are completely absent. (The industries concerned have not necessarily done any better in the region, or grown any faster, than elsewhere; but there have been more kinds that have grown). Two reasons for the growth may be found in the basic trends of the national economy. First, United Kingdom exports of vehicles, engineering and metal products have been growing faster than total exports. Secondly, national investment in vehicles, plant and machinery has grown faster than national expenditure as a whole.

THE CONSTRUCTION AND SERVICE INDUSTRIES

Their relatively low share of the region's employment at present

65. What of the remaining broad band of activities in the region—construction and services? Clearly, since the region has nearly the

Table VI **Employment in the manufacturing industries (Great Britain and the Midland Region)**
(Estimates of employees at mid-year)

S.I.C. Order	*The West Midland region* — *Number employed 1963 (000's)*	*The West Midland region* — *Change in number employed 1953–63* * *(000's)*	*Percentage change in employment 1953–63* — *The West Midland region*	*Percentage change in employment 1953–63* — *Great Britain*	*Ratio of the West Midland region's dependence on the industrial order(s) concerned to Great Britain's dependence* ‡
V Metal Manufacture	139	+ 11	+ 8	+ 4	2·3
IX Engineering and Electrical Goods IX Metal Goods	290 209	+ 81	+20	+23	1·9
VII Shipbuilding and marine engineering	1	—	—	−26	ø
VIII Vehicles	206	+ 4	+ 2	+11	2·4
Orders V–IX Sub Total:	845	+ 96	+13	+14	1·9
XIII Bricks, Pottery, Glass, Cement, etc.	83	− 12	−12	+ 2	2·5
Other Manufacturing (Orders III, IV, X–XII, XIV–XVI)	259	+ 24	+10	+ 2	0·7
TOTAL MANUFACTURING (ORDERS III–XVI)	1,188	+108	+10	+ 8	1·4

*Approximate.
‡Figures below 1·0 denote that the West Midlands is less dependent on the industrial order(s) concerned than Great Britain as a whole is, and figures over 1·0 denote the opposite.
øInsignificant.

national average proportion of workers in the primary industries, and far more than the national average proportion of manufacturing workers, the construction and services content of its economy must in employment terms be unusually low. It accounts in fact for 971,000 workers, or about 43 per cent only of all the region's employees, as compared with 56 per cent in this sector over the country as a whole. (See Text Table VII).

Table VII **Employment in the Midland Region in the construction and services industries.**
(Estimates of employees at mid-year)

S.I.C. Order	*Number employed 1963*
Construction	137,000
Gas, electricity and water	39,000
Transport and Communications	101,000
Distributive trades	231,000
Insurance, Banking and Finance	33,000
Professional and Scientific Services	184,000
Miscellaneous Services	142,000
Public Administration	104,000
Total	971,000

66. This low proportion of construction and services workers compared with the national average does not necessarily all reflect an imbalance needing redress in the region's economic and social life. It is partly a reflection of a high activity rate directed mainly towards manufacture, and the fact that more of a region's population are at work does not necessarily mean that they need correspondingly more construction and service facilities. It must also be partly due to the region's almost unique position in having no ports—and therefore no call for port-based services. The smallness of the tourist industry in the region is another factor. And possibly nearness to London has meant that the region has not had to be so dependent on its own resources. Moreover, the pressure on labour from the proportionately large and long-expanding manufacturing sector, combined with the high degree of concentration of the population in the manufacturing areas, may well have led in those areas to a more efficient and economical use of labour in the services sector of employment (e.g. in retail trade the 1961 Census of Distribution showed higher ratios of sales and customers to employees than in most other regions). Certainly in the rural west of the region, where manufacturing and concentration of population are both small in scale, the construction and services element in the economy looms very much larger than in the Birmingham conurbation and the Coventry belt.

Their rapid current and prospective growth

67. This said, it must nevertheless be expected that the construction and services element in the region's employment is likely to expand considerably between now and 1981—in keeping with national trends, and perhaps even faster. It has indeed begun to do so already. In the ten years 1953–63, while employment in the region's primary industries actually declined (by about 23 per cent) and in manufacturing went up by 9·9 per cent compared with the national 7·6, the numbers in the construction industry in the region went up by over 35 per cent, and in the service industries by over 21 per cent, as compared with national averages of 17 and 15 per cent respectively. Within the services group all expanding industries grew faster in the West Midlands than over the country as a whole, and the one declining industry (transport) declined less sharply. Overall the rise in the West Midlands was in fact the fastest, both for males and for females, of any region in the country.

68. This growth may be expected to continue as the distribution pattern of the region's population tends to open out as a result of continuing population growth, the redevelopment of urban areas and the increasing trend of dispersal whether to balanced or commuting communities. There will be need for more widespread local services and service centres. Moreover, this rehabilitation and this new development, combined with the continuing growth and prosperity which is expected in the region, must in themselves he associated with an increase in effective demand for higher living standards, with a consequent higher demand, both public and private, on the construction and services sector —including education and health. At the same time the further development of the manufacturing industries themselves seems likely in many cases to involve less emphasis than in the past on further growth of direct employment and rather more emphasis on greater productivity, new buildings, transport and communications facilities and other non-manufacturing services.

differences. They do not necessarily point to differences in efficiency of production. For this, one would need to compare also the amounts of capital utilised per employee, and these are not available on a regional basis. (However, the figures of the area of new factory buildings completed over the period 1945 to 1956, the years which might have influenced the growth of output between 1948 and 1958, suggest that investment by manufacturing industry in building, in relation to the size of the labour force in 1954, was if anything slightly below the national average, and the same is true for the longer period from 1945 to 1963). Nor is the classification used in the Census of Production a fine enough one to ensure that each of the twelve groups of manufacturing industries listed is homogeneous. The engineering group of industries for example, may in the West Midlands be concerned more than in the country as a whole with products whose manufacture requires relatively little capital but a lot of labour—perhaps highly skilled labour. This might account for the fact that in 1958 these industries in the West Midlands had an output per employee below the national average for the same industries, but at the same time were able to provide their employees with earnings above the corresponding national average. If West Midlands engineering firms rely more upon the skill of their labour than on the scale of their capital equipment, this in itself establishes nothing about their efficiency in the use of labour and capital combined. Moreover, the combination used for a particular product may not be the same for every size of firm, and some regions have more small or more large firms than others. A similar point arises in connection with the valuation of output. The industries with relatively low net output per employee in the West Midlands may owe this to greater concentration on the low-price or low-quality end of the industry's range of products. How far such factors as these affect net output per employee in West Midlands manufacturing is not yet sufficiently established.

75. The same sort of difficulties arise when considering the relative rate at which net output per employee has been *growing*—and are aggravated by the fact that regional net output figures are available only in terms of prices current at the time. Broad industry groups may contain products with differing price trends in differing proportions in each region, and this may account for part of the relative change in net output per employee in one region compared with another. However, subject to these qualifications it may be of interest that over the period 1948–58 the rate of increase in the value of net output per person employed in the West Midlands was rather less than in most other regions, and this divergence arose after 1951 and not in the earlier postwar years.

The non-manufacturing sector

76. Outside the manufacturing sector the available information is even more limited, but there are some possible pointers for further study. In coal mining, the West Midlands output per man-shift has in the last decade been around five per cent above the average for Great Britain. In retailing, the 1961 Census of Distribution showed turnover per person engaged in retail trade in the West Midlands to be about $2\frac{1}{2}$ per cent above the average for Great Britain, after allowance had been made for inter-regional differences in the structure of retail sales. It would be interesting to know whether there is any general tendency for the West Midlands to balance a relatively low average net output per employee within the manufacturing sector by a relatively high average outside it. In this connection earnings may be a clue. At any rate as judged by the weekly earnings of male manual workers, these are higher in the West Midlands than the national average in those of the non-manufacturing industries for which figures are available. Turning back to the manufacturing sector for a possible comparison, it may be noted that in the 1958 Census of Production the West Midlands industries in which earnings per employee were higher than the corresponding national average were the same (excepting only engineering) as those in which net output per employee was above the national average also. But it does not follow that this correspondence necessarily holds for the non-manufacturing sector too.

Income from employment

77. Whatever the precise picture on net output per employee or productive efficiency the West Midlands seems pretty clearly to rate high in relation to the national average as regards incomes of employees. The most comprehensive information comes from the Inland Revenue's income census for 1959/60. This showed the average size of income from employment (not

including married women employees) to be four per cent above the average for the United Kingdom. It is not possible to establish how far this may have been due to higher rates of pay in the West Midlands for comparable grades of employee, and how far to the particular characteristics of the structure of employment in the region. The size of the average income from employment in the region would be pushed up by a high proportion of male to female employment, but this proportion in the West Midlands is only slightly above the national average, although the figures available relate to all and not only to unmarried females. As regards the industrial structure, the evidence has to be drawn from other sources which are not entirely comparable with the Inland Revenue figures and are less comprehensive in their coverage. One of these sources is the Census of Production for 1958. This showed earnings per employee in manufacturing in the West Midlands to be 5½ per cent above the average for Great Britain, and that this excess was very largely accounted for by the fact that the region had a larger than average percentage of its manufacturing labour force in industries, such as vehicles and metals manufacture, in which earnings tend to be relatively high wherever they are found. In only four of the twelve industry groups did earnings in the West Midlands exceed the average for the industry in Great Britain as a whole—these four including engineering and vehicles. On the other hand, the regional data available for the weekly earnings of male manual workers showed these to exceed the relevant United Kingdom average in twelve out of nineteen employment groups in April 1960, and in fourteen out of nineteen in October 1964, indicating that for these particular employees the influence of the industrial structure of employment was of relatively less importance in raising their earnings in the West Midlands above the national average. The data referred, however, to a region larger than the West Midlands, and lacked exact comparability with the data from the Census of Production.

78. As regards *growth* of employment income per employee in the West Midlands, this was at a slightly faster rate than the United Kingdom average in the first half of the decade 1949/50 to 1959/60, and at about the same rate in the second half. For the latest years the only indicator is the earnings of male manual employees in certain industries which rose between 1960 and 1964 in the Midlands area slightly less than in the United Kingdom as a whole.

Total net income

79. The lead of four per cent which the region enjoyed in 1959/60 in the average size of employment income falls to a lead of slightly below three per cent when total net income per taxpayer in the region is compared to the average for the United Kingdom. This is because certain income from non-employment sources—pensions, profits and professional earnings, and net income from property and investments—was rather more thinly spread in the West Midlands than in the country generally. As against this, a slightly larger than average proportion of net income was contributed by wives' earnings and family allowances.

80. The *growth* in the average size of total net income, like that of employment income, was greater in the West Midlands than in the United Kingdom as a whole over the decade 1949/50 to 1959/60, and showed the same signs of slackening towards the end of the decade. But the extent to which the regional exceeded the national rate of growth was more marked in the case of total net income.

Household income

81. The picture of relative affluence in the West Midlands which has so far emerged from the earnings and income figures is amply confirmed by the Family Expenditure Survey for 1961/3. This shows income per household in the West Midlands standing even higher than that of London and the South East, and reaching 13 per cent above the average for Great Britain. This is a markedly greater excess than the 3 per cent for net income per taxpayer, referred to above. The link must be that the West Midlands has a higher number of taxpayers per household than the country as a whole. There is no direct information to confirm this, but the Family Expenditure Survey shows that in the average West Midlands household there were 1·52 persons working compared to 1·34 in Great Britain. Some of these would be wives of taxpayers, not counted as taxpayers themselves; but it seems likely that if these could be excluded, the relationship between the figures would not be very different.

82. The substantial lead which the West Midlands had in 1961/3 in income per household

was not equalled in income per person, because the average West Midlands household was rather large, containing 3.14 persons compared with 3·0 in Great Britain as a whole. But despite this the region was still 8 per cent above the British average in income per person, and was only bettered in this by the London and South-Eastern and the Southern regions. Moreover, between the Household Expenditure Enquiry of 1953/4 and the Family Expenditure Survey of 1961/3, the median size of household income in the region appears to have increased more rapidly than the national median.

The need for further study

83. It is clear that a great deal more needs to be done, by way of collection and processing of data and development of techniques, before an assessment of the region's economic performance can be achieved with any fully meaningful results. What has been said above can serve only to indicate some of the fields in which further study would seem particularly useful. Meanwhile it has been necessary to rely, for the main measurements of the way the region's economy is developing, on the information available about past trends and present prospects in employment.

THE REGION'S ROLE IN THE NATIONAL ECONOMY

Output of products

84. But by any reckoning the West Midlands has been playing an important part in the total national economy—in particular by providing some of the metals and machinery for industry in other regions and by contributing directly or indirectly to the flow of United Kingdom exports overseas. The contribution to exports is especially marked in the field of cars and components, tractors, engines, electrical plant and telecommunications equipment, machine tools, general industrial plant and machinery: and of course there has been an indirect contribution also through the supply of parts and components to exporters in other regions. This also means however that in these fields the region is markedly dependent on the country's continuing effectiveness in the export field.

Generation of jobs for other regions.

85. At the same time the West Midlands has served as one of the major sources of stimulus for industrial growth in other parts of the country. Government industrial steering policy has for many years been directed at encouraging firms wanting new factory space within the West Midlands to seek it instead in areas with more actual or prospective spare labour. Since 1945 nearly 100,000 manufacturing jobs have as a result been moved or diverted to other regions —mainly into places with relatively high unemployment in the North and West. And of course these manufacturing jobs will in turn have given rise at the receiving end to further local employment, for example in construction and services.

The need to maintain the same role in the future

86. The West Midlands is thus sustaining a considerable role. It provides jobs for all its own rapidly growing population at a high rate of activity; and it helps to underpin the economy of the rest of the country by its contribution to a rapid growth in investment (e.g. via the engineering industry), by its contribution to overseas exports, and by its supply of products and work to other regions. Clearly, in the interests of the nation as a whole, and despite the fact that other regions must be enabled to contribute more in the future, it is extremely important to maintain the dynamic of this very large slice of the national economy. But what are the prospects of doing this? Is the region in fact likely to retain both its present prosperity and its capacity for contributing to the prosperity of other parts of the country?

FACTORS AFFECTING THE REGION'S FUTURE ECONOMIC GROWTH

The continuing relevance of its centrality

87. There seems no real danger, at least for the foreseeable future, of the region's geographical situation ceasing to be to its advantage. It would need an improbably massive shift in the balance of the country's economic pattern, both functionally and geographically, for the West Midlands to lose its commanding central position. Indeed the chances are that such changes in the national pattern as are likely to occur will be in the region's favour. Any shift of development emphasis from the south-east to the north and west, for example, would leave the West Midlands even more markedly at the centre of the country's main internal lines of

communications. So would any shift of emphasis in the port pattern from the Thames and Mersey to Teesside, the Bristol Channel, the Humber or the Solent. In short, centrality looks like being for this region a permanent asset.

88. But it is an asset not without its dangers. Precisely because of its geographical situation, the West Midlands receives flows of goods and people from all parts of the country bound not only for the region itself but also through it. It can therefore be faced with a double problem of congestion from a combination of its own and the national traffic, unless both its local and its through routes are brought and kept well up to standard and suitably spaced in order to avoid undue concentration of flows in any one area. This has implications not only for communications planning itself but also for the disposition of the region's population and work.

The probable continuing strength of its industrial structure

89. Its industrial structure should also remain a continuing powerful asset. It should benefit in the future from a faster rate of growth of investment and exports. Both national and world economic activities seem likely to depend at least as much in the foreseeable future as in the recent past on the products of metal-producing, engineering and electrical industries such as predominate in the West Midland region, including, for example, machinery and machine tools, and vehicles and aircraft. The demand for such products seems likely to continue growing as mechanisation and cybernetics here and abroad are developed and applied ever more widely in public and commercial services, in domestic equipment, and in industry itself. Moreover, to a greater extent possibly than in any other region, they are able to draw on a vast pool of highly skilled and experienced engineering labour. Outside the metals and engineering industries the region's remaining major activities seem also generally well circumstanced in relation to probable future demand. On the one hand they contain no very large element likely by its nature to become irrelevant to the markets of the foreseeable future, and on the other hand many of them (e.g. food, drink and confectionery, textiles, and construction, often for national as well as regional custom) are likely to benefit from the expected rise in the national population and in its standards of living. No-one can confidently prophesy what the expanding industries of the future will be, in output or employment, and inevitably there will need to be continual diversification and new developments (it must be noted for example that as yet the chemical industry is not strongly represented in the region); but, broadly speaking, the chances of continued economic growth in the West Midlands must on structural grounds be rated high.

90. This too carries its risks. The expanding industries are found in other regions as well as in the West Midlands and—more important—other countries are tending increasingly to compete in them. The national and world demand for the products of those industries may well continue to rise, but whether this is reflected in the order books of the West Midlands will depend increasingly on the extent to which the region's firms keep up in research-mindedness, invention, innovation, and productive and marketing efficiency.

The balance of jobs and labour

91. Nevertheless, at present it remains true that the West Midlands is both well situated and well-structured industrially for meeting the future. Because of this, its freedom from any sustained regional unemployment would, in particular, seem fairly well-assured. Certainly all the present indications are that such rise as is expected in its working population through indigenous growth will for the foreseeable future be at least matched by a comparable continued rise in the region's total number of jobs. It must be hoped that technological advance within many of the region's factories, workshops etc. will enable them to economise in the use of scarce labour—that is, limit their direct job-producing potential—but this seems likely to be fully offset by general growth of demand and by increased employment in those sectors which will be providing the tools for technological advance both in this region and elsewhere.

92. This is consistent with a broad comparison which has been made between the projected supply of labour in the region up to 1981 and the estimated demand for it. The supply estimates ignored possible net immigration and recognised the limited scope for a further rise in the region's already high activity rates. The labour demand estimates took account of regional employment trends over the last decade adjusted for likely

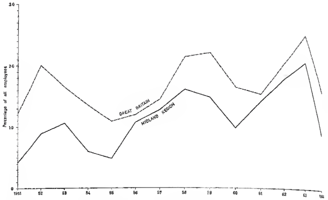


Fig. 11. Great Britain and the Midland Region: unemployment rates 1951-64
The annual average of the monthly figures of total registered unemployed (including temporarily stopped) expressed as a percentage of the estimated number of employees (employed and unemployed) at mid-year is plotted for the years 1951-64 for Great Britain and for the Midland Region of the Ministry of Labour (see Appendix, Table 33)

future changes. The indications were that the excess of labour demand over supply by 1981 might, on these bases, be of the order of 80,000. This is of course no forecast but it may well be a useful pointer.

93. The recent high crude rate of natural increase in the region's population cannot be expected to ease this labour problem materially in the period up to 1981, as what is important here is the rate of increase in the *working* population and not in the total. Indeed, by 1981 (ignoring any net migration) the increase in the working population in the region due to past natural increase may well be rather less than 10 per cent (i.e. as against an increase of 13 per cent in the much shorter period 1953/63) and in the period up to the early 1970's it may be no more than between 2 and 3 per cent. The region has already had the benefit to its labour force of the first post-war bulge in births (and a below-national-average rate of staying on at school). Like the country as a whole it will not now begin to get a comparable bonus until the second post-war bulge of young persons leave school in the mid 1970's: and this will not ease the labour problem materially in the period up to 1981.

94. There are, of course, gaps and weaknesses in any labour supply and demand estimating of this sort. For example, it might be thought that diversion of jobs to other regions will provide a corresponding diminution in the growth of employment in the West Midlands itself; but equally the steering of some projects to places outside the region in recent years may well have facilitated, in other West Midlands industries, employment expansion which through shortage of labour would probably not otherwise have taken place. But despite the fragility of any such estimates, one has to make the best assumption possible—in the light of all the statistical and other information examined and wide informal consultations with industrial bodies and individual industrialists in the region. And the assumption must be that the old pattern of a more than average rate of employment growth in the West Midlands is likely to continue and that the demand for labour will be more than sufficient to take up the natural growth of the working population there up to 1981.

95. This prospect of a continuing surplus of jobs is the one aspect of the region's industrial structure that shows weakness as well as strength. The lack of any large field of declining activity in a region enjoying very full employment means that there is no local reserve of labour to facilitate the maximum exploitation of new products or rising demands. There are already indications to suggest that many of the region's industries could be doing more business —and above all doing it more effectively in terms of speed of delivery and therefore market goodwill—were it not for the shortage of labour, especially in the Birmingham conurbation. There are also indications that this shortage of labour may be aggravated by inefficient use. The effect on costs must have a further limiting effect on expansion prospects. It might be thought that the existing shortage would act as a spur to a desirable speeding up in labour-saving re-equipment; but in so far as this has already occurred it has not as yet shown any signs of really solving the problem.

96. It might also be thought that net immigration into the region at a substantial level might be looked to, to fill the gap. It must be noted, however, that during the period 1951–63, a time of bigger inter-regional differences in job-prospects than it is assumed will exist in future, the amount of net immigration of labour to the West Midlands from other parts of the country was in fact small. The main sources of the region's net intake of labour were the Irish Republic, the Caribbean, India and Pakistan. But this labour went mainly into unskilled jobs, whereas the main future shortage would seem likely to be of skilled labour. In any event the Commonwealth Immigrants Act is resulting in a reduction in the inward flow.

97. What are the other possibilities of meeting the demand? As already indicated, there seems little prospect of a further increase in the region's employee activity rates. It is already enjoying the highest such rates in the country, both for men and women—the rate for the latter showing a particularly marked increase over the past decade. (These exceptionally high activity rates owe something of course to relatively smaller proportions of children remaining at school after school-leaving age). It cannot be expected that any considerable further rise will occur, and indeed continued prosperity could conceivably even produce a slight fall.

98. All this tends to support the view that the West Midlands—or at any rate its more congested industrial centres—would be likely to benefit from a firm continuance of the present

policy of steering away some of its employment growth to other places which have an actual or prospective job deficiency. But that cannot be the complete answer. There is a paramount need also for even more rapid improvements in efficiency than have taken place hitherto, including an increased rate of mechanisation and the introduction of more automation.

99. Amongst other things, improvements in industrial training could help ease the problem by raising standards of performance and effectiveness. The standard of industrial training in the West Midlands varies widely from firm to firm. Some have excellent facilities, but in a large number training is rudimentary. If those firms which at present do little training could be persuaded to take it more seriously and devote more thought, time and money to it, there would be a number of substantial benefits. First of all, the shortage of skilled labour would be less acute because there would be more trained workers; secondly, because workers were better trained and as a result more productive, the real demand for labour might be reduced somewhat; and thirdly, managements would become less tolerant of the inefficient use of labour. The opportunity to make a real advance on the present situation arises out of the provisions of the Industrial Training Act. Firms who do not undertake their own training will have to pay a levy, which they will not be able to recover, whilst firms undertaking training of a reasonable standard will receive grants from the industrial training boards. This should act as a spur to firms to take training and manpower utilisation more seriously. Moreover, the levy may indirectly encourage managements to replace labour by machines since it is probable that in most industries it will be based on either payroll or numbers employed.

100. On balance it seems likely that there will be some continuing demand also for a net inflow of workers from elsewhere. However, as is indicated in Chapter 3, it does not by any means follow that such a demand would automatically be met, and in any case lack of accommodation and the problems of congestion mentioned elsewhere in the report set a severe practical limit to the size of the labour force that can be accommodated.

The physical and social context

101. This question of the labour supply is not the only reminder that the region's economy does not exist in a vacuum. Its past growth and its future prospects are intimately bound up with the region's whole physical and social pattern. The results of the past growth are still there, in the shape of population groupings and environmental problems that are bound to dominate any economic planning for the region for a long time to come. Will the region's future physical development, and the scale and quality of its environmental provision, be conducive to the high degree of industrial efficiency needed? On what conditions will the further progress of the region's economy itself be compatible with improvements needed in the region's development and environment for other reasons? In particular, how can even the minimum growth expected in the labour force be best provided for, in terms of homes and workplaces, in order to promote *both* the continued advancement of the economy *and* a decent quality of life for all the region's people? To answer this it is necessary to consider the population trends in the region along with the circumstances of housing and social provision generally, and the development of communications and the general land use pattern.

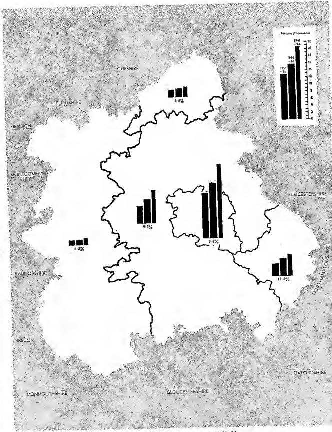


Fig. 12. Civilian population : natural increase : 1951-56, 1956-61 and 1961-64
The heights and widths of the columns are proportional to the mean annual natural increase and to the length of the period respectively. Thus, volume of natural increase is represented by the area of the columns. Percentage growth over the period 1951-64 as a whole is given in figures. The total natural increase 1951-64 in the West Midlands was 396,000 or 9·0% (see Appendix, Tables 11-14)

3 Future population trends

THE NEED TO MAKE WORKING ASSUMPTIONS

102. It will he clear from what is said in the preceding chapter that the trends in size, age-structure and distribution of the regional population are of particularly crucial direct importance to the economy in this region because this is the source of its scarcest raw material—lahour. But the population trends powerfully affect the region's economy in an indirect way, too; for they are raising complex problems of physical and social planning whose solutions may have implications just as important to it as the national and market factors earlier mentioned. They largely shape the requirements which arise in puhlic investment, the planning and control of land use, and the planning of public services—in other words the further development of the environment in which the economy has to operate.

103. Indeed the growth of the region's population and of its economy are so closely linked in a circular relationship that assumptions about the one must underlie any calculations about the other. Yet the circle has to he hroken into somehow. The individual businessman may not be ahle to do more than make the hest commercial estimate possihle within his own immediate field for a relatively short term and plan his investment and operations accordingly, attracting what lahour he can. But at the same time he will rightly expect that the region's development, which is the context of his activity, should he planned well ahead—and in a way likely to maximise and not hamper his business opportunities. This means adequate advance preparation for a disposition of labour, a physical infrastructure, and a general social provision, that will he as well-suited, or at least as adaptable as possihle, to whatever rate and pattern of total economic growth in the region turns out to best meet the economic demand. And no such advance preparation is in fact possible without making the best assumptions one can about what the population will be, and being ready to act on them until they can be modified by experience. What follows is an attempt to define practical limits within which such assumptions may be made.

THE PROBABLE RETENTION WITHIN THE REGION OF ITS OWN NATURAL INCREASE

104. A convenient figure to start with is the region's current population—about 4·9 millions. To this must be added its future natural increase (i.e. excess of births over deaths) as forecast by the Government Actuary and the Registrar General. This figure is of course subject to continual revision as fresh evidence hecomes available hearing on future fertility and mortality rates, and in recent experience the trend of such revisions has invariably been upwards. On present estimates the minimum additional population to he expected by 1981 will be about 800,000, hringing the total by that date to nearly 5·7 millions. And this is the point where the first assumption comes in—that this total will not be substantially reduced by spontaneous net *outward* migration on any material scale. This assumption is made—and will be made throughout this report—on the ground that to assume otherwise would be out of accord with the region's general migration history for over thirty years, with its prospects of economic growth so far as they can he gauged, and with the maintenance of anything like its present role in the economy of the country as a whole.

105. This natural increase by 1981 of about

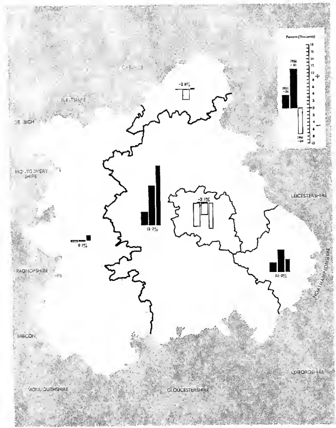


Fig. 13. Civilian population : estimated net migration : 1951-56, 1956-61 and 1961-64
The heights and widths of the columns are proportional to the mean annual net gain or loss by migration and to the length of the period respectively. Thus, volume of net migration is represented by the area of the columns. Percentage change over the period 1951-64 as a whole is given in figures. The total net migration 1951-64 for the West Midlands produced a gain of 96,000 or 2·2% (see Appendix, Tables 11-14)

800,000 may well produce an increase in the *working* population by then of about 200,000 only—because of the present population's age-structure; and most of this 200,000 will not be available before the late nineteen-seventies. In other words, the labour *supply* will grow by natural increase in the next ten years at a slower rate than the labour *uptake* has done during the last ten (in spite of the diversion of industrial expansion from the West Midlands to other areas, at a rate recently averaging 3,750 jobs annually).

POSSIBLE NET IMMIGRATION

106. It is therefore all the more necessary to bear in mind also the possibility of continued net migration during the period up to 1981. Paragraphs 16 and 17 in Chapter 1 indicate that since 1951, and particularly since 1956, there has been a fairly steady tendency for this region's balance of net migration to be inwards. Details are set out in Table 12 of the Appendix, which may be summarised as follows:—

Table VIII. Net migration into the West Midland Region 1951-64

1951–56 minus	3,297
1956–61 plus	54,388
1951–61 plus	51,091
1961–64 plus	44,906
1951–64 plus	95,997

A return to net immigration at the average 1951–61 rate, i.e. of workers and dependants together, would mean the addition of a further 95,000 people to the 5·7 millions mentioned in paragraph 104 above as the likely population in 1981. A projection from now of the average 1956–61 rate would instead produce an addition of about 200,000. A continuance of the 1961–64 rate would given an even higher addition—about 270,000—but it must be remembered that the 1961–64 rate was very strongly influenced by the peak Commonwealth figure for 1961–62.

107. Obviously, which if any of these possible levels of net immigration one accepts as likely for the future depends in the first place on a judgment of how far and fast the region's growth in labour demand is likely to continue. As indicated in Chapter 2 above, such estimates as it has been possible to make suggest that the total labour demand *will* in fact exceed the total supply, if no net immigration occurs, even after allowing for the steering of manufacturing jobs away, wherever practicable, as firmly as in recent years, and that the excess labour demand might amount by 1981 to something of the order of 80,000.

108. But as was indicated in Chapter 2, a potential gap of this sort need not inevitably lead to actual migration into the region from elsewhere. Measures to produce still higher productivity, better industrial training etc.—very necessary in any case—might well bridge the gap. The steering of industrial expansion to other areas will continue. And in any case, even if there should in the end be an unsatisfied labour demand of the order suggested, it would not necessarily lead to a correspondingly large net immigration of people—i.e. workers plus their dependants. There is likely to be continuing high demand in some other areas too (e.g. South East England and the East Midlands), and these areas are not necessarily worse able to compete for such migrant labour as is available: indeed recent migration and earnings trends would suggest the contrary. In any event, gains of *working* population to the West Midlands could be offset wholly or in part by migration from the region for retirement. Moreover, experience since 1951 has shown that any net total population migration into the West Midlands need not be very much in excess of the figure of net migrants of working age, though this trend could of course change due to delayed immigration of dependants. Finally, one source of migration in—the flow of people from the Commonwealth—has become subject to special control by Government action. Nevertheless, some net immigration into the region up to 1981 still seems a possibility, and housing and other plans for the future will therefore need to be kept sufficiently flexible to be able to cope *if need be* with a further population increase from this cause of say up to 150,000 people by 1981.

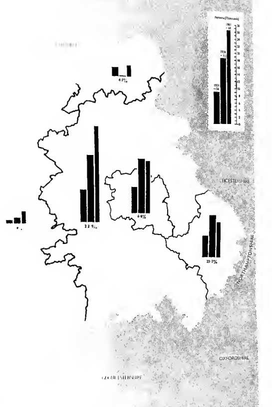
THE SIGNIFICANCE OF THE SIZE OF TOTAL POPULATION GROWTH EXPECTED

109. It certainly cannot be expected, however, that net immigration into the region, if it occurs at all, would dispose entirely of the region's labour problems, especially as regards skilled workers. The paramount need will remain for making better use of the human resources already there. Since, as indicated earlier, the amount

of extra labour likely to be forthcoming through higher activity rates cannot be considerable, the growth of the region's economy is going to depend more than ever before on more and better training and improved productive and business methods—operating within a more efficient physical and social environment.

110. But the physical and social environment will itself be heavily influenced by the population growth and the way it is catered for. For even on the minimum expectations, the additional numbers to be accommodated will give rise to a formidable aggravation of problems which already exist in the region for the better accommodation and disposition of the population that is there now—and therefore for the pattern of the region's physical development. A number of major decisions are already needed about housing, land, and the region's future urban and rural structure. The nature (or lack) of decisions on these matters could itself affect the rate of growth of the region's economy and the extent to which population is attracted or retained there. The main issues are discussed in the chapters which follow.

111. Meanwhile it is necessary to emphasise that 1981 will not be the end of the story. Indeed it will be a beginning—the beginning of a bulge of post-war babies' grandchildren. The West Midlands may have population growth problems before 1981, but they are nothing to what it may have to face afterwards unless reproduction rates decline sharply. The immediate point is this: any plans laid now in connection with the growth *up to* then, by way of new dispositions within the region and new trends of movement of its people and work, should if possible be such as will still make sense in the context of very substantial further growth to the end of the century. Sixteen years is not a long time.



Civilian population : total change : 1951-56, 1956-61 and 1961-64
[illegible] of the columns are proportional to the mean annual total change and to the length of the period [illegible] Percentage growth over the period [illegible] of change is represented by the area of the columns. [illegible] given in figures. The total increase 1951-64 in the West Midlands was 530,000 or 12.1% (see [illegible]

4 The implications for housing and land

THE GENERAL NATURE OF THE NEED

112. It must be made clear that on many of the figures in this chapter there is room for argument. In general, they represent the position as at mid-1963. They use estimates and projections of population and age structure and household formation which will be subject to correction as revised figures become available. They also rely to some extent on appreciations first made by a wide range of local authority officials and then processed—with adjustments—by central government officials who have been in touch with them. But there seems little doubt that any such argument would be confined almost entirely to the detailed make-up and locations of the various needs and problems described. There does not seem to be much room for doubt about the broad scale and nature of the general picture which emerges.

113. The picture essentially is of a region faced with a big housing and land problem to cope with future growth while still confronted by acute needs arising from neglected growth in the past. A population growth to 1981 of 800,000 by natural increase alone, or say 950,000 if there were moderate further net immigration as well, will require new dwellings within the period to the tune of about 275,000 or 325,000 respectively; but this will be over and above a need that exists already for at least 325,000 new dwellings to be built by 1981 to ensure merely a decent minimum standard of housing for the region's present numbers. The period 1981–2000 is likely to add a further new housing requirement of at least 400,000. The average total annual rate of house-building in the region over recent years, taking the public and private sectors together, has been only 30,000. Even though the pace of actual building can be stepped up, there are still very considerable problems in finding enough sites. For the places where the existing needs for housing are greatest and most acute happen likewise to be the places which are due to produce the biggest additions to the growth of housing need in the future. Yet these are also just the areas where the finding of sites for new dwellings is most difficult. Over the region as a whole the provision as yet approved or in prospect falls short by about 50,000 sites—equivalent to upwards of 150,000 population—of what is needed by 1981 even on the assumption of no net immigration at all. On the assumption of a net immigration of 150,000 people this deficiency is of course nearly doubled. The following paragraphs show how all this is calculated.

ITS MAKE-UP

The need to replace existing dwellings

114. On the best estimates available it seems likely that about 375,000 of the 1·55 million dwellings now existing in the West Midlands would be more than a century old by the nineteen eighties—if they lasted that long. Some will of course still be there and fit to live in then despite their age. But there are grounds for believing that a large proportion are actual or potential slums. Of the dwellings which were returned as slums by the local authorities in 1955, about 71,000 remain standing. A new estimate made by the authorities at the request of the Minister of Housing & Local Government at the beginning of 1965 put the number of slums in the region at present at 99,000. The local planning authorities however, in a special exercise for the purpose of this Study, estimated that the number of dwellings (of all ages) which would need to come down over the whole period to 1981 was at least 200,000—mainly through

unfitness, though many also to make room for essential alternative developments. And even that view seems optimistic when set against the age figure mentioned above, or against the numbers of dwellings in the region which in 1961 were without fixed baths (330,000) or even water closets (120,000), or which in 1962 had a rateable value below £13 (290,000). It seems optimistic also when regard is had to the widespread and growing need for redevelopment of town centres and "twilight" areas (with the consequent clearance of existing dwellings), and when the condition and quality of many of the houses built in the *present* century are measured against the rising standards expected in the years ahead. For all these reasons it would seem more realistic to take the replacement need by 1981 not as 200,000 but as at least a quarter of a million, and even this is likely to understate the problem.

115. The hulk of this need will of course be in the central division of the region, and particularly in the Birmingham conurbation. In the City of Birmingham alone there are still 36,000 of the slums declared unfit in 1955, and probably 65,000 dwellings altogether to he replaced by 1981. In the rest of the conurbation the total replacement need will be rather similar. The other big concentration of replacement need is in the Potteries, where 9,000 of the slums declared in 1955 are still standing and a very considerable further number of dwellings are of pretty poor quality, condition and situation.

116. It might be thought that this need for replacing more than a quarter of a million dwellings could be reduced hy the patching or improvement of some of them to make them last longer. Certainly work of this kind has been going on in the region for some time; in Birmingham, for example, many thousands of slums were patched by the City Council soon after the war, and in the region as a whole there have recently been conversion and improvement grants at a rate approaching 20,000 a year. The patching of slums has only postponed their replacement, however, and not made it any less necessary. Improvements could make a bigger difference, and clearly the whole system of improvement grants and schemes has a vital part to play in the betterment of this region's housing conditions. But these grants have been designed and used mainly for property not due for early replacement; and obviously neither patching nor improvement can in any event prolong the life of those dwellings whose clearance is needed to make way for some other kind of redevelopment. The region needs to do a great deal more in the field of housing improvement, hut the effort will be a complement rather than an alternative to what is needed by way of clearance and new building.

117. This replacement need is the most critical element in the region's total housing situation. It is mostly urgent; it stems largely from the big and difficult urban areas; it also involves securing that the new housing provided (inasmuch as it can seldom all be got back into the old cramped areas) is nevertheless still within reach of employment suitable for the rehoused; and it usually involves too a somewhat lengthy-statutory procedure and a careful parallel progress of new building and clearance. For this and other reasons it will tend in practice to be almost wholly a public sector responsibility.

The need to remedy a shortage of dwellings for the existing population

118. But the present population has got not only this urgent need of at least 250,000 new dwellings for replacement purposes. There is an equally urgent need to provide homes for those households who at present have no home of their own —fit or otherwise—but are forced to share, often in conditions of severe overcrowding. The problem is by its nature difficult to quantify accurately, particularly when account is taken of the need to allow also for the concept of a float of empty dwellings to facilitate mobility—especially important in a versatile and thriving industrial region such as this. Roughly, and assuming that three out of four one-person households at present sharing can he left to go on doing so, the shortage is of the order of 75,000 dwellings. Like the replacement need, the shortage arises mainly in the Birmingham conurbation, where overcrowding has recently been highlighted by the housing difficulties of the Commonwealth component of the heavy net immigration of 1956–63. Perhaps half the 75,000 dwellings required will in practice have to be provided in the public sector.

The need to provide additional dwellings for population growth to 1981

119. While tackling this total requirement for upwards of 325,000 new dwellings for the present population—many of them badly needed now—

the region has got to face also the additional demand created by population growth to 1981 and beyond. On the minimum assumption of growth—that the region will gain in numbers only to the extent of the present population's natural increase—this requirement looks like amounting by 1981 to about 275,000—making no allowance for second dwellings, or for the possibility of a material decline in average household sizes. If the natural increase were to be augmented by a net immigration of 150,000 people, the requirement would rise to about 325,000. The need, whether from natural increase or from net immigration, will arise mainly from in or near the big urban centres—unless there is greater dispersal of employment. A considerable part of it will no doubt have to be met in the private sector—though the location and timing and main servicing of what is built will remain largely a public responsibility.

The total requirement

120. The total need for new houses by 1981, even with no net immigration, therefore looks to be at least 600,000. An approximate breakdown of the need between the main parts of the region is given in Text Table IX. It should be noted however that this picture of where the housing demand is likely to arise is *not* a picture of where it is actually going to be met.

The continuing need for improvements also

121. It must be stressed once again that the estimates given are only of the total need for *new* dwellings. Although this includes a substantial element to cover the replacement of existing houses, it nevertheless assumes that there will still, by 1981, be over 125,000 occupied houses in the region over a hundred years old. It is inevitable that many of these, however sound their structural condition, will require a considerable amount of improvement in order to bring them up to an acceptable standard. This must apply also to many of the 400,000 houses built between 1881 and 1914. That is why, as stressed in paragraph 116, it is important that side by side with an increased pace of new building there should also be a vigorous programme of improvement of existing dwellings.

ECONOMIC REASONS WHY THE NEED SHOULD BE MET

122. It is unnecessary to go in detail into the social and moral reasons why the housing need estimated—and especially the elements for replacement and relief of overcrowding—should be met as quickly as possible. What is important to note for the purposes of this study is that if it is *not* met the chances of the region's maintaining its economic vitality must inevitably be weakened. Attention has already been drawn to the part played by the region's past employment growth. Housing is bound to be a key factor in the extent to which this growth can continue, not only because there must be a limit beyond which the lure of employment will not compensate for shortage and squalor of accommodation but also because any increase in the region's economic efficiency will depend to a large extent upon greater mobility of labour between different parts of it, and this, in turn, will depend upon an adequate supply of reasonable housing. The business of attracting and keeping employees may be affected by housing conditions all the more in the case of key technical and managerial staff—not necessarily so much because of any difficulty in getting decent housing for themselves, as because the prospect of living and working in or near an unattractive,

Table IX Housing need in the West Midland Region—1963–1981 (in thousands of dwellings)

Generated by	*For Replacement*	*To remedy existing shortage*	*To cater for population growth*	*Total*
Birmingham conurbation	130	62	148	340
Coventry belt	15	5	42	62
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overcrowded conurbation may well outweigh any advantage they see in going or staying there. Moreover, a faster pace of new and replacement housing can make a difference to the region's attractiveness not only directly but also by the facility and impetus it can provide for improvements in the urban environment generally.

THE REGION'S CONSTRUCTIONAL CAPACITY TO MEET THE HOUSING NEED ON THE REQUIRED SCALE

Provision for natural increase only

123. Given the will, there should not be any undue difficulty, so far as constructional resources are concerned, in meeting the basic requirement up to 1981 of about 600,000 new dwellings. The average annual building rate has averaged 30,000 over the last few years (once almost reaching 40,000) and in fact over 43,000 new dwellings were started in the region during 1964. There has recently been a pretty steady increase in employment in the region's construction industries; and it would not seem unreasonable to expect in the coming years a material increase in their productivity, too, as a result of rationalisation of traditional building methods and the more rapid and widespread adoption of industrialised techniques. Certainly a programme of 600,000 dwellings up to 1981 for a region with a population already pushing five million, and with a sizeable share of the nation's slums, would not be out of line with a national annual target of 400,000—though of course regional housing programmes generally will have to be accommodated within whatever national programme the state of the economy makes possible. At the same time it must be realised that even an average rate of around 35,000 a year still falls very far short of the ideal if it is spread evenly over the whole period, since—as will have been noted from the figures in the preceding paragraphs—there are probably well over a quarter of a million families in the region badly in need of a decent home now.

The implications of net immigration

124. The prospect will obviously become increasingly more difficult if there is any substantial net immigration into the region—whether from overseas or from other parts of the country. The immigrants will admittedly add to the total labour force on which the construction industries can draw, but the competition of the manufacturing and service industries will presumably continue powerful, and the increased housing requirement will also be matched by a further stepping-up in the already rapidly growing demand on the construction industries from other fields such as town centre development, road improvements, expanded and improved school and hospital provision, and building for commerce and industry itself.

The split between public and private enterprise

125. Ever since 1951, there has in this region been an increasing emphasis on private enterprise building—as in the country as a whole. Between 1945 and 1951 only 20 per cent of all houses completed in the region had been built for private sale. Between 1951 and 1956, however, the proportion was 29 per cent; between 1956 and 1961 it was 55 per cent; and between 1961 and 1963 it was as high as 60 per cent. The proportions for 1964 and 1965 look like being similar. But as mentioned above, the housing need existing between now and 1981 will be concentrated more heavily in the public sector, mainly because of the higher rate envisaged of replacement of slums and other dwellings. The private sector demand is likely to remain strong, at least until well into the 1970's, but it is clear that there must be a very substantial stepping up of the region's building rate in the public sector as well.

The importance of improved methods and big sites

126. It is in this public sector, which can usually offer bigger single units of ordering power, that there is most scope—given rational planning—for early recourse to faster and more labour-saving methods of building. Local authorities, too, are more likely to be able to provide the larger sites on which modern building methods can be economically deployed. The extent to which this will in practice lead to the more widespread adoption of modern techniques will depend a lot, however, on the housing authorities concerned. They vary. It will also depend on the extent to which additional agencies with special development functions are brought in to deal with the bigger expansion projects. This is referred to in Chapter 6.

The cost of the housing

127. As to the cost, it must be assumed that a region which labourwise cannot afford not to

have a growing population cannot afford, either, not to provide decent homes for them to live in —subject to whatever financial arrangements are made in this connection nationally as well. It is of interest that there is some evidence of a fairly recent change in the region's pattern of spending on housing. A Ministry of Labour Enquiry into Household Expenditure in 1953–4 showed that in spite of an income pattern more like that of the southern regions of the country, West Midlands households were paying no more for their housing than the average in the northern regions and in Wales. A similar enquiry covering the years 1961–63, however, revealed not only that a higher proportion of the family income was by then being spent on housing, but that in money terms weekly expenditure in the region was on a par with that in the Southern and Eastern regions and substantially exceeded only by that in London and the South East. On the other hand it seems that in 1963–4 the average rents of *council houses* in the West Midlands were the lowest of any major area in England and Wales; that they were still lower than in every other major area except (marginally) the North even after excluding Birmingham with its special circumstances of council ownership of extensive patched slum property; and that whether excluding Birmingham or not the region showed an average rate subsidy per council dwelling in line with that obtaining in the North, and much higher than that of any other area except the special case of London. These indications suggest that a substantial stepping-up of the region's total housing effort—and especially in the public sector—will at current levels of constructional and land costs involve rather more than the usual problems of financial adjustment.

Land, not constructional capacity, the region's real problem

128. Nevertheless, it remains true that broadly speaking the region's housing needs do not present problems which are restricted to the region, so far as construction is concerned. Any questions that arise as to agency or finance will be of a kind common in all regions where housing—including slum clearance—is a major problem at all. The special problem of the West Midlands is in deciding where the houses are to be built—in the public and the private sectors alike. Since houses must be related to jobs, and both to a total social organisation, this means considering the region's whole future pattern of land use. And especially in relation to the Birmingham conurbation, since it is there that lie both the major economic cause of the region's future growth of population and the major physical element in its backlog of need of dwellings for even the existing population.

THE GENERAL NATURE AND SCALE OF THE REGION'S FUTURE NEED FOR LAND

129. For the Birmingham conurbation, while responsible through its economic and population attraction and growth for the greater part of the region's prospective use of land for development, is precisely the part of the region with the least land available for that purpose, This is partly, of course, for the obvious reason that it is largely built-up already, but partly also for special additional reasons which aggravate its land difficulties. One of these is the high density of many of its slum areas, which means that when they are redeveloped to proper standards of housing and community provision the total number of households accommodated in the new houses is often considerably less than were in the slums cleared. Another is the general need throughout the conurbation generally, and not only in its slum areas, for better roads, schools and similar social provision, town centre redevelopment, and other civic improvements, which if carried out to modern standards as they must be will pre-empt much of what little land is as yet undeveloped. A third reason is the need to provide more public open space in many parts of the conurbation where it is at present badly lacking. A fourth is the fact that commercial and industrial firms between them—and particularly the latter—not only occupy (naturally) a great deal of the conurbation's area for the purposes of their present activities, but also hold in total a considerable amount of land in reserve against the possibility that one day they may both need and be permitted to expand there. A fifth reason is that many pockets of conurbation land are in practice having to be wasted because they have been left damaged, derelict or isolated in old industrial areas or between part-used or unused old canals and railways, and even apart from the heavy cost of making them accessible and fit for use their position often limits the kinds of development for which they would be suitable. Above all, as mentioned earlier, public policy

has maintained a girdle of relatively open land around the conurbation, treating it as green belt within which there is a presumption against the granting of planning permission for any but a very limited range of purposes—which do not normally include housing or industrial development—and as yet there have not been sufficient arrangements made for a compensating amount of development *beyond* the green belt to meet even the minimum needs up to 1981.

130. This indeed is the crux of the matter. If the land needs generated by the Birmingham conurbation are to be met, there must be *either* a change of public policy to enable its further peripheral expansion into the areas at present treated as green belt, *or* allocations of more land in some place or places beyond the green belt where the necessary development could be carried out both successfully and suitably; and both of these present considerable difficulty. The maximum practicable internal redevelopment and utilisation of the conurbation area itself will still be necessary, of course, but it would be unrealistic to expect this to meet the whole of the combined needs of growth and renewal; and in any event for the next ten years or so any sizeable internal redevelopment of this kind will continue to be very dependent on the use of more, not less, elbow-room outside. The issues involved are discussed in Chapter 6.

131. The land needs generated by the rest of the region—including the Coventry belt—are less concentrated and less substantial in total scale, but are still very considerable. Though they do not in themselves give rise to problems so extensive or acute as those generated by the conurbation itself, it is their combined effect when added to the conurbation's pressures that creates the total regional land problem. For over three quarters of the region's total land surface, as mentioned earlier, is used by agriculture; a great deal of its area is valued for its rural amenity —and in the case of many of the medium and smaller towns for historical and architectural associations, too; the towns and villages in and beyond the green belt around the Birmingham conurbation and Coventry have over the years absorbed considerable amounts of additional population—and some industry—from those two centres already; and there are therefore certain resistances to absorbing much more. At the same time there are also certain resistances by people within the Birmingham conurbation itself—and Coventry too—to the meeting of the land needs they generate at any considerable distance from the point of generation, in spite of the problems involved in finding the required land any nearer. One consequence has been that the local planning authorities of the region have not in practice been able to agree between themselves a realistic regional land use strategy capable of meeting the total regional need for land for any period ahead at all—let alone up to 1981 and with provision for possible further net immigration. This is an additional reason why a general regional study of this kind can be of particular value.

132. This is not to say that the amount of land formally or informally earmarked for the region's future development is not very considerable. All the local planning authorities have made quite substantial provision in the normal course of business; several have also carried out a special check recently for purposes of this study and in consequence have indicated a sizeable amount of additional provision which they think could be made; and certain large-scale projects initiated or approved by the Government in recent years have added to the total. But it still falls short, as the following paragraphs show.

THE CURRENT BALANCE OF LAND DEMAND AND SUPPLY IN THE DIFFERENT AREAS

The rural west

133. So far as the housing land requirements of West Shropshire and Herefordshire are concerned, there appears to be no major difficulty. The combined need to 1981 for new housing arising from replacement of existing dwellings and provision for natural increase—insofar as it is retained—is unlikely to call for more than about 25,000 sites, and this can clearly be met easily from redevelopment and from the vast open acreage, either by further expansion of Shrewsbury and Hereford or the modest expansion of some of the smaller townships or a mixture of both. There could be some minor local town and country planning problems, and care will have to be taken to minimise the taking of good agricultural land: but there should be no major difficulty of regional significance. This would seem likely still to be the case even if the region as a whole received considerable net immigration, since the great bulk of the immigration would presumably be towards the

region's main centres of economic growth rather than to the rural west itself. Accordingly, although the rural west may well be a suitable location for deliberate development to relieve the land problems of the central parts of the region (this is discussed in Chapter 6 below), it does not generate a land problem in itself.

North Staffordshire

134. Similarly North Staffordshire, although its housing requirement—largely in the Potteries—will be much more considerable (perhaps amounting by 1981 to about 70,000 dwellings), should be able to look after its own land needs both as regards replacement dwellings and those needed for population growth, even assuming that the region as a whole gains by net immigration. Apart from redevelopment sites, there is considerable land on the fringe of the Potteries which if necessary could be made available for housing without unduly extending the urban sprawl or risking coalescence with the nearest sizeable urban areas (Crewe and Stafford) to the north west and the south. So there is no locally generated land deficit likely here either.

The region's central division

135. The big land problems are in the Birmingham conurbation and the Coventry belt. The difficulty in the Coventry belt, however, seems more apparent than real; so far as can be judged, it stems not so much from an actual lack of land that could be developed for housing without detriment to decent planning of the area, as from differences of policy and outlook between the Warwickshire County Council and the Coventry City Council which have impeded their joining together to formulate a comprehensive sub-regional plan for the whole belt that could provide for the accommodation of considerable growth for many years to come.

136. So it boils down to the Birmingham conurbation as the area for which the real and big land deficiency arises. It is real in the sense that it has been calculated by reference to physical and technical considerations (see para. 129 above) which are largely independent of the particular policies and practices of the various local authorities within the area. By 1981 the land in the conurbation which is due for redevelopment (on the assumptions made earlier about housing replacement) is estimated to be likely to yield sites for about 75,000 new dwellings; the as yet virgin sites committed or earmarked for housing are estimated to be sufficient for probably a further 65,000 dwellings; and a recent special survey has suggested that by various devices perhaps another 30,000 dwelling sites might be scraped up by 1981 to augment them: making a total, by that year, of about 170,000 dwelling sites in all. But it still falls short of the estimated minimum need till 1981 (for 340,000 dwellings) by about 170,000 sites—even assuming that between now and 1981 there is no net immigration to aggravate the overcrowding and so step up the size of the housing need still further.

137. The first and most obvious place to look for land to meet at least some of this outstanding need for 170,000 or so sites is the conurbation's hinterland—either in developable pockets within the proposed green belt or in places beyond it; in other words in towns and villages of West Warwickshire, Worcestershire, East Shropshire and South Staffs which lie outside the conurbation area. But there is already a call on the land in these places—for meeting their own housing replacement needs and their own prospective growth. By 1981, even assuming no net immigration to the region, West Warwickshire will need about 15,000 new dwellings; Worcestershire will need upwards of 30,000; East Shropshire will need perhaps 10,000; and South Staffs about 45,000: making a total need of about a hundred thousand sites for new dwellings *without* taking any account of possible accommodation of Birmingham conurbation overspill as well. If to this is added the conurbation's estimated outstanding need for sites for about 170,000 dwellings, the total demand for sites in these areas around it will amount to about 270,000. How far can this requirement be met?

138. The ordinary land allocations already made by the local authorities concerned in their development plans, including a small quantity of land which will become available after redevelopment, amount to about 112,000 sites, distributed as follows:

South Staffordshire	— 50,000
Worcestershire	— 29,000
West Warwickshire	— 12,000
East Shropshire	— 21,000

On top of this, a special survey made for the purposes of this study revealed a further 31,000 sites (17,000 in S. Staffs and 14,000 in Worcestershire) which might also be made available,

bringing the total number of prospective sites in the conurbation's hinterland up to 143,000. Apart from tentative proposals to create a few small "commuter" villages in Worcestershire, these sites are largely concentrated in and around the existing towns and larger villages—for example Kidderminster, Bromsgrove, Cannock and Stratford.

139. In addition to this land, however, there are a number of special overspill reception projects, in a ring of places around the outside of the proposed conurbation green belt, which have already come forward and in some cases have actually begun to operate—the new towns at Dawley and Redditch; the town development schemes at Daventry and Droitwich; the current town development proposals for Lichfield, Tamworth and Stafford; and the smaller town development schemes already being executed by a number of authorities in South Staffordshire. And to top these up in order to help meet immediate needs there was at the end of 1964 a special allocation of land for 15,000 houses at Chelmsley Wood on the periphery of Birmingham itself. All these between them could by 1981 add about 76,000 more sites to the 143,000 already potentially available within the conurbation's hinterland.

The total outstanding deficiency

140. The combined effect is shown in Text Table X below.

Table X Central division (excluding Coventry belt) Housing need and land availability 1963–81

'000 dwellings

	Estimated minimum housing need	*Approx. no. of sites at present in prospect*	*Balance*
Conurbation	340	170	− 170
S. Staffordshire	45	67	+ 22
Worcestershire	30	43	+ 13
W. Warwickshire	15	12	− 3
E. Shropshire	10	21	+ 11
Total	440	313	− 127
Overspill schemes	—	76	
			− 51

Against an outstanding need of 270,000 sites in the area around the conurbation there is therefore a deficiency of about 50,000—or a lack of provision for around 150,000 population. As earlier indicated, this land problem of the Birmingham conurbation and its hinterland may also be taken as the main land problem of the region as a whole. And it is clear from the figures that the real cause of it is the physical congestion and population expansion of the conurbation itself.

The effect if there were net immigration

141. This is all on the assumption that there is no net immigration on any material scale. What will the position be if net immigration does in fact occur—concentrated, as it probably would be, in and around the conurbation? If the increase of population from this source by 1981 were 150,000, the deficiency of 50,000 dwelling sites could become one of 100,000 or more.

The complementary need for land for other purposes

142. The outstanding land needs have so far been referred to in terms of the requirements for housing sites. There will also, of course, be a substantial accompanying need for other land to accommodate industrial and social development necessary for the employment and servicing of the populations housed. The precise size of this need, however, will vary considerably according to the extent to which the need for the housing is eventually met in places already supplied with employment and community facilities. At this stage of the discussion it is necessary only to note that the region's land requirement is not exclusively a housing one.

THE RELEVANCE OF THE LAND DEFICIENCY AS A MEASURE OF THE NEED FOR LOCATIONAL DECISIONS

143. The outstanding land deficiency referred to is of course not a real one in the sense of any actual physical shortage of developable land in the region as a whole. On the contrary, there is a great deal of it—though not necessarily all in the most convenient places or free from other important demands on it, such as the agricultural demand or the requirements of public amenity. Indeed, the West Midlands is much better off in this respect than the regions in the north where freedom of choice is limited by the nearness of mountain or sea. Moreover, in the task of seeking where the land requirement should be met there is of course no special necessity to keep within the

region's own boundaries; and this particular region, more perhaps than most, has other regions adjacent with which common problems and solutions might be shared. The figures of land deficiency are merely the difference between the provision as yet made or in prospect in local or Government plans, and the minimum that is likely to be needed in actual practice. They are an indication of the scale of the acts of will that are still needed in the region's planning in the near future, of where the need will mainly stem from, and of where it can least easily be met.

THE IMPORTANCE OF RELATING THE LOCATIONAL DECISIONS TO THE GENERAL CIRCUMSTANCES OF THE REGION

144. In other words the estimates of housing and land deficiency constitute part of the need and the material for a physical regional strategy. But to make sense—and to be fully useful—such a strategy must also deal with a number of other major features in the region's development. These are dealt with in the Chapter which follows.

5 The Region's other main features

COMMUNICATIONS

General

145. Good road, rail and air access is of special importance to the West Midlands because of its central inland position and its heavy external trade. It therefore stands to gain considerably by anything done to improve the national traffic flow generally, and particularly in the port and other areas with which the region is industrially linked. But there is also plenty of room for improvement within the region itself. The present communications are by no means worse than in other regions, but there is need for substantial further strengthening at a number of points to cater for growing traffic flows in and between the existing centres, and additional provision must at the same time be made to facilitate and support new development. Equally, any new development must itself be so planned as to relieve the strain on already overloaded facilities, maximise the benefit from any existing spare capacity and from current improvements, and keep to a minimum the requirements for fresh investment in a field where the resources available will probably continue to fall well short of demand.

146. This is especially true of the Birmingham conurbation. The present concentration of employment and population there, and the additional population that has been attracted to its periphery and hinterland, particularly its commuter component, have resulted in a pattern of development and activity that has put a heavy burden on local communications and transport facilities of all kinds. Massive expenditure is being incurred in carrying out improvements needed simply to keep the traffic of this great complex moving at all. The scope for further improvements is limited not only by considerations of cost but also by the dead weight of the physical development already in being.

147. This existing development, and the dense concentrations of traffic it generates, create problems not only for local communications throughout the area but also for the planning, execution and ultimate effectiveness of the vital linkage between the three motorways M1, M5 and M6. The long time taken to complete this linkage is largely due to the engineering and dislocation problems involved in physically getting through the conurbation, and in reconciling the local needs for entry to the motorway system with the equally important need for protecting that system from excessive use by purely local traffic. Such problems, and the time necessarily taken to complete any major road improvements, react back, in turn, on the speed and effectiveness with which the conurbation's existing physical development can be refashioned. This generally unsatisfactory situation will of course be all the worse if plans for accommodating the continued growth of the region's population are based on acceptance of further concentration in or around the conurbation—either by means of a widely extended built-up area or of a much bigger commuter belt.

148. *Some* further development within the conurbation and its environs must undoubtedly occur, however, and in any event the further traffic growth even from existing development is bound to be very considerable. The current conurbation transport and land use survey should provide valuable data and interpretative analyses on which to plan for it—helping to show in particular how best a new regional strategy might be applied and adjusted within and around the conurbation itself. Though no substitute for regional plans and decisions it could be a valuable tool in formulating and implementing them as regards this central urban area.

Roads

149. The biggest backlog of need is on the roads. The importance and difficulties of the programmed motorway linkage scheme have already been mentioned; until it is completed the region cannot maximise the advantages of being at the centre of the national network. A start has been made on modernising urban roadway systems within the main town areas, but as in all regions the scale and pace seem likely to fall far short of need. Between the towns, however, the various schemes already planned should provide the region with at least a skeleton of serviceable routes where the need is at present most acute. Also, the comprehensive improvement programmed for the A38 from Birmingham to Derby, and the improvements projected along the southward route towards Oxford and Southampton, will strengthen the region's external links in two directions which seem likely to gain in importance having regard to probable future trends in the country's pattern of development.

150. But much more needs to be done. Proposals for major schemes after 1970 are still being worked out, but the need can already be foreseen for some major new routes to be developed within the region; for example, there is nothing in the present programme for a good modern road from the Birmingham conurbation to the Dawley new town. In urban areas, the needs will be even greater. By the early 1970's, the results of the conurbation transport study should be capable of being translated into actual proposals for road improvements. In towns outside the conurbation, new approaches to urban traffic problems and new survey techniques being developed will also have a practical effect on road improvement progress and reveal new needs which will have to be met. All this means that, in the 1970's, the demand for investment in roads to deal with immediate problems in the West Midlands will be very heavy. But there will also be a call for some investment on roads to support longer-term regional development strategy. For physical and technical as well as financial reasons, no unprogrammed projects of the latter kind could be started much before the 1970's, and this emphasises the need for the future regional strategy to be decided fairly quickly and with a clear understanding of what it means in terms of additional road investment requirements in the next decade.

Rail

151. Rail services to and from the region will be improved considerably by the electrification of the Euston-Lancashire and Potteries-Manchester lines. Within the region there are some rationalisation projects which should ultimately improve the local facilities. Certain closure proposals, however, especially in the area around the conurbation, will have to be looked at carefully to ensure that they do not prejudice plans for a better long-term distribution of growth or conflict with rational planning of transport in the urban complex. Examples are the proposals for the Birmingham-Redditch closure and for the modification of the Birmingham-Lichfield and the Birmingham-Tamworth-Derby services.

Air

152. The Birmingham City Council are now preparing to extend the main runway of the Birmingham airport to 7,400 feet to take bigger planes, and this will not exhaust the site's potentialities. The nearby Coventry City airport's terminal facilities are being improved for smaller planes, including ferry services. It is possible that there is scope here for co-ordination of management and operation to promote a regional rather than a municipal service. Both airports will have increasingly good access for all the main potential users in the region as the current road improvement programme progresses, and the demand seems bound to increase as their facilities are expanded.

Telecommunications

153. There is a fast-growing interest among West Midlands industrialists in improved methods and facilities for transmitting information between points within the region or between the region and factories or offices in other areas. It seems likely that the new techniques and services that are developing in this field will have an increasing relevance to the prospects of securing a wider deployment of the region's economic activity.

WATER AND SEWERAGE

Water supply

154. If the assumptions and estimates made earlier in this study are borne out, the water undertakers in the West Midlands will have to reckon by 1981 with nearly a million more domestic consumers; the substitution of about

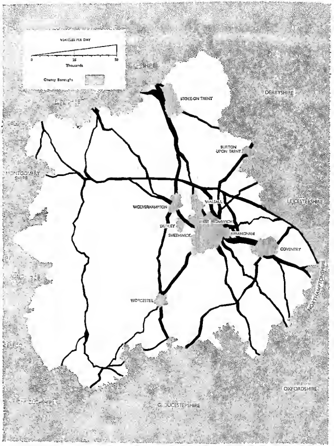

Fig. 15. Trunk roads : density of traffic 1961
Compiled from the latest complete Trunk Road Traffic Census taken by the Ministry of Transport. The volume of traffic (represented by the width of the lines) is the average for a 16-hour day over the period 21st-27th August, 1961 (i.e.prior to the opening of motorways)

a quarter of a million new dwellings for existing dwellings which in general are much less well-equipped with water-using facilities; and a continuing high level of industrial activity and consequent industrial water demand—coupled with growing requirements in the food-producing areas for water for irrigation.

155. In total, the water resources now available or in reasonable prospect for the region look like being sufficient to cater for this increase by 1981, but the continuing rise that must be expected in population and demand after that date will probably require a substantial further augmentation of resources, and the authorities concerned will need to begin planning for this fairly soon.

156. Moreover, the probable sufficiency of resources until 1981 depends on the maximum progress being made meanwhile in the development of all available local sources of supply, and in the exploitation of the Clywedog reservoir scheme which is now under construction and is designed to enable abstraction to be substantially increased from the River Severn.

157. There may well be variations also, during this period, in the pace at which water undertakers in different parts of the region will be able to cope with the increases in population in their areas, and one of the most urgent tasks to be undertaken when decisions have been reached in the light of this study will be an assessment by each of the undertakers concerned of how best to meet the new demands likely to fall on them. The recommendations made in Chapter 6 below take the differing water circumstances of the different areas into account, but only in a broad sense.

158. For purposes of general planning of development over the West Midlands as a whole, however, perhaps the most important point to note is that in the long term the region will probably continue to need to look westwards for its further resources, to the Severn and the Wye. In so far as the main extension of the pattern of physical development takes place otherwise than westward, there will be that much more need for moving water across.

Sewerage and sewage disposal

159. Although, as with water supply, local variations in sewerage and sewage disposal potentiality will need to be borne in mind when final decisions are made on selection and size and timing of major new developments in the region, there appear to be no important problems of a regional nature. Any distinction in this field between the landlocked West Midlands and most other regions with their proportion of coastal and estuarial communities is diminishing as more and more of the latter adapt their sewage disposal arrangements to incorporate some form of treatment.

THE GENERAL MAN-MADE ENVIRONMENT

The older industrial towns

160. Because of the difficult land use implications, attention tends to get rather strongly focused on the need to replace the region's existing and prospective slums. In addition to this, however, there is in many parts of the region, and not exclusively the conurbation and the Potteries, a striking need also for doing something about the whole built environment—by improving houses which could still have a good few years of life, by modernising some of the outworn shopping and industrial centres, and by somehow reducing the general drabness of the urban scene. Improvement of the urban road systems is an indispensable part of all this, but it should not be left at that. The wide extent of unattractive urban environment could become a source of positive economic weakness to the region should the present rate of demand for its products ever begin to slacken off. Indeed, the current shortage of labour despite continuing unemployment in other regions may already be reflecting something of this. While some local authorities in the region have shown a full awareness of the urgency of the problem there are other areas where progress is painfully slow. There are also marked variations in the quality of the redevelopment.

Derelict land

161. It is mainly in or near these same areas of general drabness that you see the derelict land. An up-to-date estimate of the amount of derelict land in all regions should be available shortly as a result of a survey initiated by the Minister of Housing and Local Government, but on the basis of existing information it is estimated that there are about 15,000 acres of such land in the West Midlands, or about one-tenth of the total for England and Wales. The rate of reclamation since 1946 has averaged only about 600 acres a year, and on current proposals even this rate will

barely be maintained. It is estimated that in the meantime there may be as much as 200 acres a year being created annually by development which escapes planning control, such as abandoned old industrial installations and certain forms of tipping. In many cases a faster rate of reclamation would not only help to remove depressing visual blemishes but could also provide some badly-needed land to facilitate urban redevelopment and save virgin land elsewhere.

The towns and villages outside the main industrial areas

162. There is a good deal of renewal activity, and pressure for renewal, in such places as Shrewsbury, Hereford, Ludlow, Worcester, Malvern, Stratford, Warwick, and some of the bigger villages—encouraged in many cases by the growth of population and the consequent demand for a fuller range of services. The need for such work is clear; but it is equally important that it should be planned and controlled with care and imagination in order to avoid damaging one of the region's undoubted assets—possession of a substantial amount of the more agreeable kind of English townscape set in attractive countryside. At present it cannot be said that the renewal is always being carried out well.

The countryside

163. In the countryside itself the record on the whole is quite fair. Despite very considerable pressures, the local planning authorities in recent years have evidently managed to secure that new development is in general kept within suitable selected areas, and that the better rural settlements have not lost their character and cohesion by unnecessary clutter and sprawl. A well-thought out policy of development control in these areas will become increasingly important with the continued substantial growth of the region's population—many of whom inevitably will have to be accommodated in country districts along with some service and other employment. More and more the need will be for a positive approach which recognises that developments and changes must occur, and is therefore directed not simply to resisting them but to ensuring that they are located and planned and carried out well. A purely preservationist approach will seldom be sufficient, and in many villages and townships comprehensive refashioning and expansion, done sensibly, would be of positive benefit.

EDUCATION

Schools

164. Taking the region as a whole, the proportion of teachers to pupils is well up to the average for England and Wales, and perhaps slightly better. On the other hand, there is a rather higher than average proportion of unqualified staff. The difficulty in recruiting qualified teachers is in some parts of the region very marked. These are usually places with a generally poor environment, and it is also such places that have had fairly substantial flows of Commonwealth immigrants, with consequent special educational problems. Yet another difficulty facing the schools in the industrial areas is the high demand for labour, which tends to draw pupils away from the schools early. Overall, the region has a markedly lower proportion than the country as a whole of children staying on at school after the minimum school leaving age—although there have recently been signs of improvement. This has obvious implications for the region's future trained manpower resources.

165. As regards school buildings, the West Midlands as a whole is better off than some other regions, but nevertheless can be said broadly to share in the general need for new and improved provision indicated in the recently published national survey.

Further education

166. The scale and range of existing and planned arrangements for further education in the region are considerable, but the demand is high too, especially in the conurbation and the Coventry area, where a big increase in facilities will be required quite soon. There seems to be a particular need for more courses of ordinary as distinct from advanced work.

Higher education

167. University status is being given to a second institution in Birmingham, and the University of Warwick has already been established at Coventry. With Keele University already going strong in North Staffordshire, the main question of regional significance seems to be whether a fifth such institution (if there is ever to be one in this region) would be better located somewhere

in the vicinity of Wolverhampton or further west in an area like Shrewsbury. The long-term strategy of westward expansion suggested in Chapter 6, below, would seem to favour the latter course. It is clear, however, that many other criteria unconnected with regional development must be taken into account in the selection of university locations, and in any event the question has now become doubly academic with the decision to concentrate university expansion for the time being on existing institutions.

HEALTH AND WELFARE SERVICES

168. In the region as in the country as a whole, many of the hospitals are old and unsuitable. There is a serious general need for more beds for maternity cases, and for replacement of a high proportion of the beds for the old. Other strong needs are for the provision of modern out-patient departments, a co-ordinated accident and emergency service, and additional facilities in regional and sub-regional specialities. Accordingly, although the National Hospital Plan will in general be implemented by the development of district hospitals providing comprehensive facilities on one site, special priority will be given in this region to maternity cases, out-patient services and geriatric beds. Current plans for the mentally ill are based on the provision of units for acute treatment integrated with the district general hospitals, involving a continued reduction in the number of patients in the large and often unsuitable old mental hospitals.

169. In the related field of local authority health and welfare services there is great variation in quantity and quality of provision between individual county and county borough councils. But almost everywhere there are serious deficiencies of one kind or another, and much more seems to need doing in this sphere than is at present planned. The region is also short of doctors and very badly off for dentists. As in the field of education, there are indications that the general environment in many parts of the Birmingham conurbation and the larger towns is not attractive to professional men and women.

THE ABSORPTION OF COMMONWEALTH IMMIGRATION

170. One notable feature of the West Midlands in recent years has been, of course, the growth of the coloured element in the population—mainly in the Birmingham conurbation, where out of the total net population growth of 110,000 between 1951 and 1961 some 40,000 were noted as having been born in the Commonwealth, Colonies and Protectorates. The 1961 Census figures showed that the Commonwealth etc. component made up 1·43 per cent of the population in England and Wales as a whole, and 1·47 per cent in the West Midlands. In the Birmingham conurbation it made up 2·16 per cent—the figure in Birmingham City and in one or two other towns being materially higher. The actual total in the conurbation was about 51,000 (compared with 58,000 recorded as having been born in the Irish Republic). Since 1961 there has clearly been some further net inflow, and the present conurbation total has been estimated by informed observers to be around 100,000, or 4 per cent of all the conurbation population. For Birmingham itself the estimate is around 70,000, or 6 per cent of the population of the city. Over the region as a whole the Commonwealth etc. percentage of the population is probably still below two.

171. Insofar as this immigration has had its problems, particularly in the fields of housing, education, and health and welfare, these have been mainly in areas where difficulties in these fields have already been fairly marked. From the point of view of a general study of the region, they can be regarded as an additional symptom of an existing and more general problem—that of labour shortage, housing deficiency, congestion, and general social stress, arising from continued concentration of employment and population in and around an already big, crowded and partly outworn urban complex.

THE TASKS OF LOCAL GOVERNMENT

Finance and staff

172. From what has been said about the region's present and prospective needs—particularly in housing, road construction, urban renewal generally, and education—it is clear that the local authorities here as everywhere else have a big enough job of work ahead. As to how they will raise the money, there appear to be no marked features in this region that distinguish its problems of local government finance from those of local government in the country generally—except, of course, that because of its prosperous

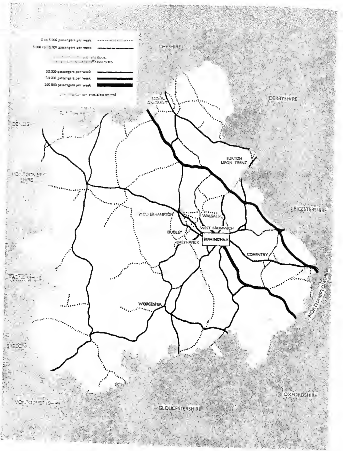

Fig. 16. British Rail : density of passenger traffic 1961
Derived from "The Reshaping of British Railways" by permission of the British Railways Board.
The map shows the pattern of traffic in 1961 and thus covers some services which have since been withdrawn

business and employment conditions the region should be rather better able than some others to carry its own share of the cost, at any rate in the Birmingham conurbation and Coventry belt and their immediate hinterland.

173. Equally the region as such has no unusual major problems of local government staffing, apart from the general labour shortage already referred to and the fact that many parts of the Birmingham conurbation and a few of the towns outside it seem to have a lack of attraction for professional staff that is rather more common in regions of the North than in regions of the South.

Housing

174. When it comes to particular executive functions of local government, the biggest and most pressing task in most places in the region will be housing. Here it may not be reasonable to expect the whole job to be tackled by the local government system left to itself operating in the conventional way. In some areas at least, limitations on land and staff and constructional resources and the need to make an increasing use of modern methods of building will be such that the local authorities, if they are to achieve the necessary results quickly enough, will have to resort increasingly to new ways of organising their effort—acting in concert with each other and making use of all potential outside resources as well, including of course the assistance and advice of the National Building Agency. And in those parts of the region where the housing to be done amounts to a sizeable town expansion project (the possible areas are suggested in Chapter 6 below) it will need to be considered very carefully whether the job is in practice one which can reasonably be treated as a local government responsibility at all—even assuming new methods of organising the work, and financial assistance under the Town Development Act. The scale and urgency of the task may be too great. In such cases the better course may be the introduction of a new agency like a Development Corporation of a New Town.

Planning across local authority boundaries

175. Effective development of this region may well call for a special new adaptability in the conventional local government structure in the realm of broad land use and highway planning, too, especially in the main areas for renewal and development. This does not imply any criticism of the general basis of the present or proposed local government organisation, which is outside the scope of this study. But it is difficult to believe that the desired pace and quality and comprehensive treatment of the urban renewal needed in some areas will be best achieved through entirely independent thinking and planning and action by the various local authorities concerned—whether in their present shape or as currently proposed to be reorganised. At least within the Black Country, and probably within the Potteries too, there seems a good case for some kind of formalised joint effort between neighbouring authorities to secure a thorough across-the-board reconstruction (with a much more decent, efficient and intensive land use) of areas which lie across individual local authority boundaries and away from the main developing centres, and between them add up, in their present state, to as poor an example of urban environment as anywhere in the kingdom.

176. And the need for this kind of joint planning and joint action arises not only where the major task is renewal, but also where it is a question of expansion. In the Coventry belt, as indicated earlier, there could well be very substantial further growth of population, and there should be plenty of room to accommodate it decently. But this will call for a broad comprehensive sub-regional plan, covering not just the city itself but its whole area of influence from Nuneaton down to Leamington and eastwards out to Rugby—with careful provision for appropriate broad groupings of land uses and a sub-regional communications pattern. Such a plan is hardly likely to emerge—still less be effectively implemented—if reliance is placed solely on the dialectic of independent thinking and proposals by the Coventry City and Warwickshire County Councils for their respective bits of the whole area. It is not necessary to query the separation of city and county and county districts for purposes of local government as a whole, to recognise that for purposes of efficiently dealing with planning problems which are the concern of both of them the two major authorities in this area need to concert and follow a joint land use strategy.

177. A similar need arises in East Shropshire, where the development of the Dawley new town and the growth of the nearby existing communities of Wellington and Oakengates, all forming one single area in terms of the region's economic geography, can help or hamper each

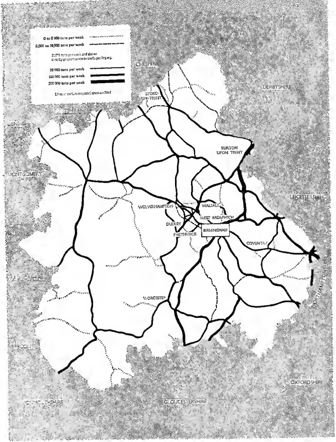

Fig. 17. British Rail : density of freight traffic 1961.
Derived from "The Reshaping of British Railways" by permission of the British Railways Board.
The map shows the pattern of traffic in 1961 and thus some lines which have since been closed are included

other accordingly as their planning is or is not co-ordinated so as to transcend local authority and new town boundaries. The need will be all the greater if the Wellington and Oakengates area is to be developed much bigger and faster, as a second or extended new town, as suggested in Chapter 6 below.

The need of a clear regional context

178. And whatever the planning problems in particular sub-regions or areas, there is one thing on which all the planning authorities in the region seem fully agreed—that in operating their local development plan and control functions they will all do their jobs better, both for their own areas and for the region as a whole, if they can only see a reasonably clear regional context ahead. They need to know—for discussion in the first instance, and possibly for argument, but above all for purposes of eventually having a broadly settled background of policy—what the general aim for the region is to be; the scale of provision they are expected to make in their different parts of the region for population and industrial growth; the way the Government think the region's pattern of communications should evolve; and so on. They are prepared to back their own judgment as to what should be envisaged and done in their own areas; but they know that they are dependent on central decisions and information on a number of matters by reference to the circumstances of a wider—that is to say a regional—area; and they need to know on what this wider consideration is likely to be based. In other words they need to be conscious participants in a regional strategy. The following Chapter suggests lines on which such a strategy might be developed.

6 The development of a regional strategy

THE NATIONAL CONTEXT

179. From the assessment set out in the previous chapters it will be clear that many of this region's features of interest must be considered at least as much in their national as in their regional context. This is especially true in the industrial field, and in particular as regards the questions which pose themselves about future business prospects, productive efficiency, labour economy and the desiderata for the steering of industrial employment to various parts of the country. It is to some extent true also, of course, in relation to such matters as housing and roads and other public services—in so far as these depend on national investment programmes in which questions of priority can arise between particular kinds of need and particular parts of the country.

180. For purposes of the present report, however, the suggestions for the further evolution of a planning strategy for the West Midlands are confined to what appear to be the main things which are necessary and practicable in terms of policies and actions specific to the region itself. They are therefore concerned largely with the local physical pattern of development. It is assumed that they will be examined subsequently in the light of whatever assessments are currently available of the aggregate needs and potentialities of all regions, and of the basic assumptions in national plans—including assumptions about migration.

181. It can be said, however, that the suggestions made are not envisaged as calling for any deliberate diversion to the West Midlands of a significantly greater share of national resources and effort, in any of the major fields of interest, than the region might have been expected to receive in the normal course of events in the absence of any attempt to assess its needs comprehensively.

THE REGIONAL CONTEXT

Objectives

182. The basic requirement is to settle broadly for the period up to 1981—but with an eye also to the longer term—an economically and socially acceptable disposition of the region's population growth and new housing and the jobs available to support them. And this must be done in a way that will still make sense if during that period the growth and the effective housing demand are found to be faster and bigger than the minimum estimates which have been described in earlier chapters of this report—800,000 net population growth and 600,000 new houses.

183. This means in practice assessing the scale and nature of the further development that can reasonably be planned within or around the main existing settlements, and then deciding, in so far as it has not been decided already, where provision could best be made for the balance of the development needed. In particular it means deciding how to handle the continued growth in the population, housing need, and labour demand, of the Birmingham conurbation, bearing in mind the implications of its already dominant influence on the physical and economic and social pattern of the region. And it will clearly be desirable so to frame any future plans for these purposes as to maximise the effectiveness of past policies in so far as they are still relevant, and the usefulness of past investment.

The time-scale for decisions and their implementation

184. Much of the development that can take place during this period is of course already

committed, both in scale and location, by the physical facts of the situation and by decisions already reached. This is particularly true of the remainder of the nineteen sixties, for which in all important respects the pattern is already set. Plans and land allocations for the amount of development practicable between now and 1970, especially in the public sector, have already been settled either in detail or in principle—providing, as regards the Birmingham conurbation, not only for substantial building or rebuilding within the conurbation itself but also for some peripheral expansion, for considerable further commuter development, and for a number of overspill projects including two new towns. Moreover, these overspill projects are likely to pre-empt all the steerable industry available for such purposes in the region for some years to come—given the prior claims on it, under Government policy, of places where there is significant unemployment. And similarly the pattern is already set for the next five years or so in the field of communications improvements; for no new major decisions taken in this field from now on can in practice have physical effect until the nineteen seventies.

185. In short, today's strategic planning for this region must be addressed largely to the period 1970–81 and beyond.

186. This does not mean, however, that the planning can afford to be leisurely or the decisions on it delayed. Because of the time lag, in almost all the major fields of physical development, between strategic decisions and execution on the ground, the main lines of development for the nineteen seventies have to be settled now and action on them put in hand. Otherwise there will be a danger of discontinuity of effort, and the pace of necessary development even during the rest of the nineteen sixties could thereby be slowed down.

The effects of transport developments

187. But if the plans for the nineteen seventies must be settled now, they must also be made reasonably flexible. This is so for a number of reasons, including the inevitable uncertainties about the extent to which the region's population growth and industrial activity will in practice follow the lines at present assumed likely. It is especially true in relation to the possible implications of developments in transport. As already mentioned, the West Midlands will within a few years have one of the country's major motorway intersection points. No-one can be quite sure of the precise effect this will have on the development potentialities—and problems—of the region as a whole or of the conurbation within it.

188. Nor is it clear what the full long-term potentialities are, in terms of internal activity, of the conurbation itself. The local authorities concerned are now engaged with the Ministry of Transport and Ministry of Housing and Local Government in a land use and transport survey of the whole conurbation area. This work will provide new information on the relation between land-use and transport demands, and it will enable plans for improved transport facilities to be worked out and tested against the pattern of future needs. This will obviously have implications for the long-term disposition and size of the urban mass. Surveys of this type are still relatively new in this country, and this particular one is still in its early stages. There has been close contact between the regional study group and the survey personnel, with exchanges of basic working data. The proposals in this report are likely to affect what might be done in the light of the survey's findings, and indeed must be taken into account in the course of it. There are as yet, however, no results from the survey itself. When they become available—in perhaps two to three years' time—some review may prove necessary of any plans that have been made for the region or the conurbation meanwhile. This is not to say that broad strategic decisions for the region or the conurbation should, or could, be therefore put off; it is simply that in the light of the survey they will need some adjustment, if only marginally.

Past policies

189. Since the war there have been two main strands in public policy for this region. Its vigorous economic growth, and the associated concentration of pressure on labour resources in and around the Birmingham conurbation and in the Coventry belt nearby, have caused it to be regarded and used as a major source of steerable industry for development districts, and this has to some extent acted as a check upon the dispersal of industry within the region itself. At the same time the population growth and therefore the physical growth potential of the Birmingham conurbation, aggravated by the need for massive renewal and opening out of its housing and general urban fabric, have created an acute problem

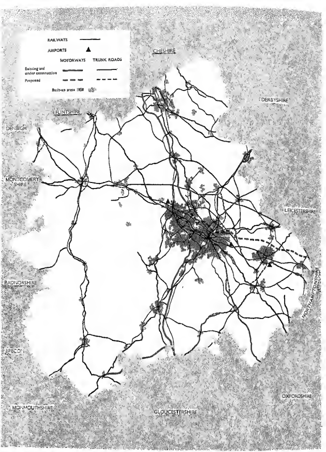

Fig. 18. Communications.
The railways shown are those in use, and the road proposals those approved or under consideration, at mid-1965

for its own balanced development and that of the countryside around it, and restrictions have been placed on extension of the conurbation's built-up area—since the middle nineteen fifties by means of green belt proposals which although not yet formally approved have in practice been treated broadly as if they were.

190. This by itself, of course, could contain the conurbation's outward pressure for a time, but could not relieve it. The relief has been found in part through continued private housing development in enclaves within the green belt or at places just beyond it—with a consequent increase of commuting, and of the problems to which this can give rise. Some relief has also been sought in the complementary public development, within this same commuter zone, of overspill reception projects at selected places which it was hoped might be built up as new or expanded centres so as to take some of the heat off the conurbation both in terms of labour demand and of physical planning difficulties. The pace at which this latter means of relief could be pursued has been limited by the extent to which firms have been willing to move and by the competing claims of the unemployment areas for new industry. Nevertheless some solid progress has been made. A number of small overspill schemes have already been nearly completed; two larger town development schemes have recently been started; two new towns have been designated and will shortly begin actual development; and three additional town development schemes are now being locally considered. Moreover, one of the new towns designated—Dawley—represents a step in the direction of opening out the region's development pattern towards its at present relatively underdeveloped western areas.

Present needs

191. The question now is what to do next in dealing with what is a continuing problem—bearing in mind these drafts already made on the region's land development potentiality, and the probability that the total amount of steerable industry in the country is likely to continue to fall short of all the demands made on it.

192. In answering this question it will be necessary to bear in mind that the needs arising from the growth generated by the Birmingham conurbation are not the sum total of the needs of the whole region. There are local problems too—in the rural west, in North Staffordshire, in the Coventry belt, and in areas within or near the conurbation itself—and any further development of a regional strategy must cater adequately for them also, so that local planning can proceed in a sub-regional as well as a regional context.

193. Nevertheless, it remains true that the most significant common factor underlying all aspects of the region's present situation—whether in employment, housing, land, communications, or the condition of the general environment—is the continuing high degree of concentration of its population and economic activity in its central urban complex. Any strategy for the future disposition of the region's people and work must suggest how this trend of concentration should be coped with in the future; the extent, if any, to which it should be deliberately moderated; and in what ways. The general nature of the West Midlands as a region with a heavily industrialised centre of gravity is of course a fact of history, neither good nor bad in itself and certainly not in any event capable of being radically altered within this century; but that still leaves plenty of scope, and indeed obligation, for decision as to how far, given that it *is* such a region, its further development should follow the past trend or not. The population increase and the new employment and the new houses and roads have all got to be located somewhere. Their location will be governed by public plans and public decisions. The big question in practice is how far those plans and decisions are to be based on an acceptance of further regional concentration and how far on an attempt at some modest degree of dispersal—bearing in mind that the present pattern in the region gives rise to difficulties enough today through its concentration of a surplus of jobs, and could give rise to even greater difficulties in the long term if there were ever eventually to be a surplus of labour.

REDEVELOPMENT WITHIN THE BIRMINGHAM CONURBATION

The importance of the task

194. Within the Birmingham conurbation itself there are at present nearly 2·4 million people. As indicated earlier, there is a massive need there for slum clearance and rehousing, for improvement and rehabilitation of outworn and derelict

areas, for redevelopment of shopping and commercial centres and industrial sites, and for modernisation of traffic and transport arrangements. The scale of effort and investment called for in all this will indeed outweigh anything necessary elsewhere in the region. It goes without saying that this *renewal in the conurbation must constitute a central feature of the regional strategy.*

The size of population that can be accommodated

195. Along with this imperative renewal requirement goes a need to try to limit the numbers accommodated within the conurbation's present boundaries—at least during the next fifteen years or so while the specially heavy task is being faced of clearing away the existing backlog of obsolescence and laying down a modern and forward-looking physical basis for future development and movement within the whole area. The natural increase of the present population of some 2·4 millions could by 1981 amount to about 400,000; but having regard to the existing congestion, and to the new housing and land needs that modernisation entails, there is no reasonable prospect of decently accommodating by 1981 any such increase of numbers within the present area, and indeed every prospect that even the present numbers will need to be reduced somewhat if effective progress with modernisation is to be made. The redevelopment and overspill plans already made, including the recently approved scheme for housing 50,000 overspill at Chelmsley Wood just outside the conurbation area, go some way towards recognising this.

196. A distinction needs to be drawn, however, between the circumstances of Birmingham City in this respect and those of the conurbation's other towns. It is in Birmingham itself that there exists the need for a large absolute reduction in present numbers—even on the assumption of much higher densities of development in new residential areas than has been common in planned redevelopment in the past. The same situation does not exist in all the county boroughs and districts that make up the rest of the conurbation. The estimates of site availability mentioned earlier suggest that between them these can take some *increase* over their present numbers. Overall, *it seems reasonable to plan in terms of the total existing conurbation's area's accommodating by 1981, in a very much more extensively modernised environment, a population only about* 150,000 *short of its present one.* This assumes, however, that the authorities concerned will all press on vigorously with their redevelopment programmes and will build dwellings on all of the various sites which they have estimated are available already or could be made available as redevelopment proceeds. It will be difficult to achieve, but if it can be done it will be worth while, from the point of view both of maximising the usefulness of the heavy investment which must go into the conurbation anyway, and of limiting the scale of the overspill problem remaining.

Need for co-ordinated planning

197. But if the conurbation after modernisation is still to hold something approaching its present numbers, the modernisation ought to be done comprehensively. The building of upwards of 170,000 new dwellings and the heavy accompanying programme of roadworks and general redevelopment will not be completed well enough or soon enough if tackled piecemeal. This is the point at which to stress an important related need in the regional strategy—for a co-ordinated physical planning framework for at least the western part of the conurbation area, with particular reference, as indicated in para. 175 above, to the redevelopment of the Black Country. Without such an approach the overspill problem could well become greater, and the internal problems of the conurbation ultimately worsened instead of eased. *A special planning study of this area needs to be undertaken as soon as possible* to show how best to achieve an integrated and balanced pattern of development in which the existing county boroughs there and the districts between and around them can exploit their limited total area to the maximum advantage of the local economy and the local environment.

POSSIBLE WAYS OF PROVIDING FOR OVERSPILL FROM THE CONURBATION AND GROWTH IN THE AREAS AROUND IT

The three courses open

198. From the figures in paras. 195 and 196 above it will be seen that the containment and indeed slight reduction of the conurbation's total numbers over the next sixteen years will mean finding accommodation outside it, in so far as it has not been found already for well over half a million of its present and potential population. Any plans

for doing this must take account also, however, of the population growth of some 150,000 which is likely to occur, by natural increase, in the areas around the conurbation in West Warwickshire, South Staffordshire, East Shropshire, and Worcestershire and which will be attracted towards it by the demand for labour. In other words, the total potential pressure of new population on the areas around the conurbation between now and 1981 will be around 700,000, and must either be accommodated within these areas or provided for further away. In so far as present firm plans fall short of this total need, three courses are possible. The conurbation can be allowed to expand outwards—as it did extensively, of course, until recent years. Or overspill satellite towns and private commuter development can be encouraged, close enough in to be still well within the conurbation's sphere of influence—which is the policy mainly followed in recent years. Or independent new centres can be built up farther away, as distinct social and economic entities creating their own separate spheres of influence—the one major step in this direction so far being the designation of a new town at Dawley.

The limitations imposed by industrial location considerations

199. But the choice from among these three courses is not entirely free. If any of the population concerned is to be diverted from the conurbation to a place that is not within easy daily travelling distance of it, or a fortiori to an independent new centre still farther away, it will need to be matched by a growth of employment and in particular by provision of new industrial jobs—some of which can come only by export of industry from the conurbation itself. The scope for doing this under current or foreseeable policies, however, is bound to be restricted. As already mentioned, industrial dispersal within the region has to take second place to the steering of jobs to other regions which have areas suffering from unemployment, and the total amount of mobile industry on which to draw for either purpose is anyway limited by the facts of the industrial situation. Between 1945 and 1963, some 200 industrial firms or projects moved out of the region under this policy, accounting for an estimated 100,000 jobs; but barely 50 firms or projects came in, bringing perhaps some 7,000 jobs; and the movements from the conurbation to the rest of the region consisted of some 115 firms or projects involving only about 20,000 jobs. This policy of restricting the amount of expansion or dispersal of industry allowed within the region itself has been operated with increasing firmness in recent years, and even such population dispersal as has already been planned within the region could call for several times the recent rate of intra-regional industrial movement if it is to be fully matched by local manufacturing employment.

200. This is not to say that industrial location considerations, difficult as they are, rule out any attempt at dispersal at all. It must be remembered that the figures of intra-regional industrial movement quoted relate to a period during most of which there were few alternative locations on offer within the region to tempt the interest of conurbation firms—and when there was less physical pressure, also, on such firms to move. It may well be that more firms will be available for overspill reception projects if there is a wider and more attractive range of them and if it becomes more generally accepted that firms planned out should normally be rehoused outside the conurbation area. Moreover, although the existing areas of unemployment must be expected to go on needing industry from the West Midlands for a good many years to come, there are grounds for hope that this need will not continue indefinitely. Nevertheless, it is evident that a regional strategy must keep a reasonable balance, at least as regards the next decade or so, between developments requiring movement of industrial employment on a material scale and those which can be supported for at least some of their employment from existing industrial centres.

Peripheral expansion

201. If easy availability of employment in the first instance were indeed the only consideration, one obvious way of catering for the conurbation's overspill and for the growth of the population of the areas around it would of course be to allow the conurbation's built-up area to go on extending outwards. This indeed is what would happen in the absence of any regional or town and country planning at all. The residential suburbs would spread out still further; employment would build up all the more rapidly both within and around the conurbation in response to the increase in the labour force; the traffic

and transport system would get into ever increasing complexity carrying an ever-increasing load; and the conurbation's central areas would have to deal with the needs of an additional half to three quarters of a million people in their immediate catchment. Moreover, the process could hardly be suddenly stopped in 1981, and it might not be many years beyond that date before the propensity of the urban mass thus encouraged to go on expanding resulted in the suburbanisation of a large part of the surrounding counties, to give a continuous built up area stretching out to absorb Redditch in the south and perhaps even Coventry in the east.

202. It seems all the more desirable to avoid such a course in that it could have serious implications for the conurbation's much-needed modernisation. In terms of physical planning and public investment, especially in housing and traffic and transport, the pattern and quality of the dead weight of existing development in the conurbation are such that the inevitably limited resources available for improving its environmental efficiency will be fully stretched coping merely with the problems arising from the present scale of the urban mass. To take in a very much bigger population and physical fabric by extending the built up area would at this stage have the same effect as trying to accommodate many more people within the existing conurbation boundaries: it would exacerbate the problems just at the period when they need containment in order that they can be adequately tackled at all. In industrial terms its tendency could be to accelerate the upward spiral of labour demand and labour supply which sucks into the conurbation and its surroundings economic activity for which other areas have more ample space and more urgent need. From the point of view of the general balance of development in the region as a whole it would make no sense simply to have a bigger problem covering a bigger stretch of the region's central area.

203. A limited and highly selective amount of peripheral development is of course another matter. As suggested earlier, the conurbation land use and transport survey may indeed indicate points where some modest thickening up on the periphery may well be possible without causing any great difficulty in the modernisation or operation of the general urban system, and where damage to the effectiveness of the green belt as a means of maintaining the conurbation's separation from other urban areas would be minimal. At one point on the periphery, at Chelmsley Wood just to the east of Birmingham, provision for some 50,000 conurbation population has just recently been agreed to. But it seems reasonable to conclude that this should be the last peripheral project of such a major character, and that *the inner edge of the conurbation green belt should now be confirmed broadly on the basis on which it at present stands*, subject to any marginal adjustments that may be found appropriate later on in the light of the land use and transport survey's findings.

Satellite development close-in

204. If development on the conurbation's periphery is strictly limited, and the green belt confirmed, the next outlet for conurbation-generated or conurbation-oriented growth must be development just beyond the green belt, within commuting range of the conurbation itself. Such a course has some obvious attractions. First, in many of the areas concerned the development could proceed relatively quickly, and where successful might well form a basis for further expansion after present targets were achieved. Second, in a conurbation of this size and kind there is an undoubted demand for a large supply of dwellings or land for dwellings, close enough in to allow people to move out of the centre without having to change jobs—which to the extent that purely peripheral expansion is barred, must mean other provision within travelling distance. Third, and by the same token, development of this kind relatively close to the conurbation is not wholly dependent on the provision of new local employment, but can form part of the general economic unit of the city region—given the necessary improvement of communications. The call on steerable industry is therefore minimised. Fourth, it can be argued that from the point of view of the economic efficiency of the West Midlands a balanced and inter-related expansion of the area around the conurbation, properly supported as to infrastructure, would be the least disruptive of people's lives and of the region's industrial growth, and that such a development could offer its inhabitants services comparable to those of a metropolitan area.

205. Moreover, close-in satellite development of this kind does not all need to be in special and sizeable public projects such as new or expanded

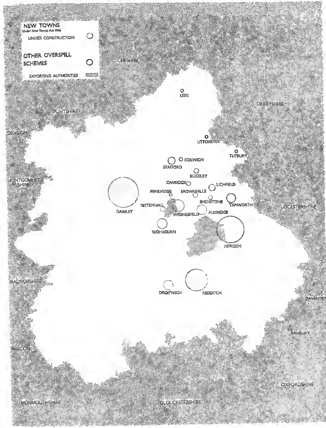

Fig. 19. Existing New Towns and other overspill schemes
New towns and other overspill schemes are shown as at end-1964. Numbers of dwellings being provided for planned overspill are indicated by the areas of the circles

towns. As explained in Chapter 4, the four county authorities around the conurbation have in mind, between them, some 143,000 dwelling sites which might be suitable for development in a less organised way, by a wide range of infillings and modest expansions of existing towns and villages which are either within commuting range of the conurbation or near other existing centres of employment. This number of sites could meet all the likely housing needs to 1981 of the existing communities in the areas concerned (some 100,000 dwellings, of which about half will be required to accommodate natural increase of the existing population) *plus* some of the population growth from the conurbation itself—particularly in the private sector. It seems reasonable that *the authorities concerned should be encouraged to make all these 143.000 sites available for development as soon as possible.*

206. But these 143.000 sites are of course only a part of what can be done by way of close-in development. They can be supplemented by sizeable planned projects of new development in some of the conurbation's satellite towns which can each provide a physical and social environment separate from that of the conurbation itself although still to some extent within its sphere of influence employmentwise. The most important of the projects of this kind which have already been agreed on are the Redditch new town and the town development schemes for Droitwich and Daventry (the latter just outside the region's eastern boundary). Such schemes are of course of particular importance in this region in that they are more convenient than many of the more scattered sites for the production of sizeable additions to the stock of housing in the public sector, and that is what is most urgently needed in view of the size of the backlog of slum clearance need. The Staffordshire County Council are currently considering three more schemes of this kind—at Stafford, Tamworth and Lichfield, to accommodate between them a conurbation overspill of some 50,000. These three towns seem quite well suited for further growth, and their development in this way would appropriately complement, on the northern side of the conurbation, the pattern of new towns and town expansions already developing on its southern side. *It is recommended that expansions of Stafford, Lichfield and Tamworth should be agreed and started as soon as the necessary plans can be settled.*

207. The various close-in developments referred to in paras. 205 and 206, together with the development on the conurbation's periphery mentioned in para. 203, can between them provide for a population increase by 1981, in the conurbation's hinterland in East Shropshire, South Staffordshire, West Warwickshire, and Worcestershire, of around half a million. This will go a long way towards meeting the immediate needs. But it still falls short by upwards of 200,000 of accommodating the 700,000 or so population that will need providing for by 1981 on the estimates referred to in para. 198.

208. Yet it represents perhaps about as much close-in development as it would be prudent to resort to. For if there were any substantial further thickening-up, beyond some such amount, in the ring of development around the green belt's outer edge, the benefits of this method of development could begin to be markedly offset by its dangers. The conurbation would soon be surrounded by what would amount to an outer ring of suburbs at one remove, with the green belt either entirely eroded or reduced to urban open space. The pressures exerted on the conurbation's central areas by the needs and activities of the population of the outer ring would become increasingly heavy. Exacerbation of the road and transport problems both inside the conurbation and around it could become acute. Meanwhile the concentration of employment and population in the region's central area would go unchecked—indeed reinforced, and the pressures which create the basic problems generated in and by the Birmingham conurbation would still be operating in full.

209. In other words, indefinite continuance of the policy of close-in development, however convenient and indeed inevitable as a means of providing for the growth needs of the conurbation and its surrounding areas from now into the early nineteen seventies, is not by itself a sufficient strategy. Some other and additional course needs adopting for the remainder of the provision needed by 1981—a course more likely to help, over a period, to relieve the region's fundamental problem of over-concentration in and around its central urban areas.

Additional projects further out

210. This need for complementing the policy of close-in development with something more far-reaching will be all the greater if the natural increase in the region's population up to 1981

in fact exceeds the present estimate of 800,000; if further net immigration to the region, on a significant scale, does in practice occur; or if the effective demand for new housing during the period materially exceeds the 600,000 so far estimated. Moreover, lines must be laid well before 1981 for the kind of provision that will be needed afterwards—for further growth between then and the end of the century, by natural increase alone, amounting to perhaps another million people. Some at least of the plans for the region's development during the nineteen seventies ought to take all these considerations into account.

211. What this all suggests is that the further evolution of the regional strategy should be towards a dispersal of future development well away from the conurbation, into independent centres that will neither aggravate nor suffer from its problems; and that this course of dispersal should be followed to the fullest extent that industrial location considerations allow. And the obvious direction for such dispersal is westward. For on the north and south of the conurbation there will be the considerable close-in development already mentioned; to the east there is the growing Coventry belt and beyond it the expanding towns of the East Midlands; and to the south east the wide-ranging population growth generated from the London direction and likely soon to extend into North Bucks and Northants. In the west of the region, by contrast, the field is relatively clear. Such problems as exist are, as it were, on the other side of the coin from those which characterise the central urban areas—population sparsity rather than congestion, limited economic diversity rather than a wide-ranging surplus of jobs, and townships which are almost too small for continued viability rather than urban masses which are almost too big for continued efficiency and comfort.

212. As mentioned earlier, one step in this direction has in effect already been taken, in the designation of the Dawley new town in Shropshire, which by its location well away from the conurbation and from its main sphere of immediate influence represents a definite opening-out in recent overspill planning policy in this region. But when the capacity of Dawley as at present planned is added to that of the peripheral and close-in development referred to in paragraphs 203–208, the total provision for Birmingham conurbation overspill and for the growth of the population in the conurbation's hinterland is still only about 550,000. Thus, as an immediate step, provision has to be made somewhere for another 150,000 people (which is the equivalent of the 50,000 dwelling sites indicated in Chapter 4 as being the gap between the total number of sites needed in the region by 1981 and the number available from land allocations and development projects so far envisaged). What is needed urgently is to find where else on the westward side of the conurbation the further development needed might usefully be undertaken.

213. The 150,000 people will in practice largely be overspill from the Birmingham conurbation. The need to provide for them arises now. It arises largely in the public sector, and therefore the provision will be most effectively made by way of sizeable projects like new towns or town expansions. It is of crucial importance to the Birmingham slum clearance and rehousing programme, and therefore the projects ought to be sufficient in number to give a fair prospect of a high total rate of building. This suggests at least three projects, each providing for reception of upwards of 50,000 overspill by 1981. At the same time, by the very fact that they are needed soon, the projects must not represent such a degree of westward dispersal as to create difficult problems from the start in the provision of matching employment, or undue additional requirements in the provision or improvement of roads to link them adequately with existing industrial centres.

214. Reasonable locations for three such projects can in fact be found—comparable with Dawley in their distance from the conurbation, and lying on an arc around the conurbation's western side. The projects proposed are:—

(a) *Enlargement of Worcester City* by provision for at least 50,000 overspill population, thus increasing the population by 1981 to something around 120,000. The broad principle of expansion here has already been accepted by a previous Government, and planning studies have been made of the problems and possibilities. Worcester is well located near the M5 motorway; a substantial expansion of it now seems well-justified; and a carefully planned and executed project would have the added advantage of facilitating balanced renewal of what is still a city of character.

(b) *Expansion in the Wellington–Oakengates area* by similar provision for an overspill population of the order of 50,000, bringing

the total population by 1981 to over 100,000 there too. Plans are already being prepared for some local expansion and redevelopment, and a more sizeable expansion of the order indicated would seem both practicable and useful, complementing the growth of the Dawley new town nearby. The selection of the precise area over which the development should take place will need to take account of the high quality of some of the farmland in the vicinity, and the potentiality of some of the derelict sites.

(c) *A sizeable additional development in the area between Stafford and Stoke on Trent.*] As indicated in para. 206, it is in any event proposed that there should be an expansion of Stafford itself. To the north there is the urban area of the Potteries with its urgent problems of renewal. In between is the Swynnerton ex-R.O.F. site which has been the subject of proposals by the Staffordshire County Council for a new town based on substantial industrial development. Taken as a whole, the area seems well suited for receiving 50,000 or 60,000 additional population over and above such growth as is already envisaged. The precise disposition of new settlements and employment, with particular reference to the expansion scheme for Stafford and the circumstances of Stoke on Trent, needs to be worked out in a detailed sub-regional plan.

215. These three proposed projects are all in areas sufficiently near the conurbation, and sufficiently well-placed for industrial attractiveness, to moderate any difficulty in securing a sufficient supply of new industrial employment to match their development. They are all on national lines of communication which are either already good or are going to have to be made good anyway. They are all, also, situated in such a way that they can assist in opening up for the region a more far reaching front of westward dispersal of its growing population, if the opportunity arises. Technically they present some difficulties for development, and there may also be some problems about farmland, but strategically they seem a good choice. Between them—given an early start and vigorous planning and execution—they should be able to expand sufficiently fast to accommodate the bulk of the 150,000 pre-1981 population which is not catered for in the plans and suggestions already made. In the case of the Stafford–Stoke area there is the additional possibility of an ultimate enlargement of the expansion scheme to take overspill from congested parts of the North West region, too, if that should be thought appropriate.

The planning of an independent new centre for the longer term

216. But by themselves these three projects are still not enough to provide what is required. They leave the region's development plans very narrowly limited to meeting the bare minimum estimated needs of population growth and housing replacement up to 1981, with no margin for delay or failure in any of the various plans envisaged; no provision for meeting additional demands that may in practice arise *before* 1981; and no groundwork for the big developments that will certainly be needed in the nineteen eighties and nineties. Moreover, they do not in themselves take the strategy of westward dispersal very far; rather, they are the stepping stones for it. A start needs to be made on the planning of a new centre or centres of growth further westward still—on a substantial scale. A positive effort at dispersal of this kind could put a limit to the continued growth not only of the conurbation itself but of the whole area round it; it could begin to ease the whole complex of problems entailed in the word "congestion"; it could enable provision to be made—or earmarked—for meeting not only the needs of the West Midlands itself but also those of neighbouring regions; and it could also help create a nucleus of long-term expansion of more than purely regional significance. It is indeed the latter possibility that makes this course particularly worth while—the prospect of being able to formulate the long-term provision for the region in such a way as to contribute to the national as well as to the regional advantage.

217. Such a new centre, to be effective as a nucleus for independent growth and as a countermagnet to established towns in the region's central areas, will need to be quite sizeable, for it must be capable of attracting and holding sufficient diversified enterprise to maximise its economic prospects and the return on the investment put into it. It must also be well situated for national as well as regional communications. And if it is to serve its purpose as a deconcentrating influence in a region lying athwart the country's

main axis of industrial activity, its situation must be chosen with great care.

218. From all these points of view, *the area which seems most clearly to merit detailed study of its large-scale development potentialities for the longer term is the part of the region which embraces Shrewsbury, Wellington and Oakengates and the Dawley new town.* There is ample suitable building land there, though much of it is also farmland of good quality. The population will in any event by 1981 be approaching a quarter of a million, and more if the early expansion of Wellington and Oakengates proposed in this report goes ahead. In Shrewsbury the area has a focal point of some character which might well be developed further as a major regional centre. The industrial expansion already envisaged in Dawley and Oakengates can offer a convenient economic base. If a new town for Mid Wales is built in the Severn Valley, this could be brought into relationship with the complex. In the very long term, further expansion in this area could open up the possibility of a new axis of growth northward to the Dee and southward to Severnside, exploiting the growth potential which already exists in some of the other towns of the Welsh Marches like Oswestry, Leominster and Hereford.

219. The precise form of development to be adopted for a Shrewsbury-based complex of this kind would need very careful thought, however. It would be important not to destroy the character either of Shrewsbury itself or of the Shropshire countryside and townships within its wide sphere of influence. A new and possibly loose-knit kind of sub-regional expansion might have to be considered. Such a study must take time. With 1981 only sixteen years away, and an ever present possibility of bigger growth in the region's population pre-1981 than so far assumed, it would be well worth starting it now. The earlier a broad conclusion is reached about the direction and nature of the West Midlands' continuing expansion in the long term, the more effective will be the planning and operation of a strategy for the region in the years immediately ahead.

INDUSTRIAL MOVEMENT PROSPECTS FOR THE LONGER TERM

220. Further study is also needed of the ways in which the necessary increased dispersal of industry within the region can best be promoted. Although the West Midlands will be expected to go on exporting some of its expanding employment to other regions, there will still be enterprises in and near the Birmingham conurbation that will in due course require new space, but which cannot reasonably be expected to move out of the region altogether to find it. What is needed is to find out more about the conditions on which it would be worth while for such firms to establish themselves—or their offshoots—in independent centres elsewhere within the region away from the existing central urban complex; what are the obstacles to dispersal of this kind; and how they could be overcome. Such a study would have a useful bearing both on the progress of the close-in overspill schemes envisaged for meeting the more immediate needs and on the prospects and planning of a long-term project such as the one suggested in the Shrewsbury area.

THE GROWTH OF THE COVENTRY BELT

221. Coventry City and the towns within its sphere of influence, from Nuneaton and Bedworth in the north to Warwick and Leamington in the south and Rugby on the east, have a combined population already over 600,000, and likely to grow by 1981 to well over 700,000 by natural increase alone. On past experience this population growth will be all the greater if the West Midlands as a whole experiences net immigration, for this is one of the region's main labour-attracting areas. As mentioned earlier (Chapter 4), over this Coventry belt as a whole there should be no real difficulty in efficiently accommodating such a growth, either in terms of housing or of industry, provided that the job is tackled comprehensively (para. 135). It will be desirable to avoid a heavy concentration of the growth on Coventry itself, since this could put at risk the considerable environmental benefits which the city has gained from the redevelopment already carried out. A sub-regional plan by which the smaller towns around Coventry could be built up in a purposive relationship with it, on the basis of a single broad pattern of land uses throughout the area, with good sub-regional communications and urban parklands, could be to the advantage both of those towns and of Coventry itself. It would follow that for the purposes of industrial location policy the sub-region would be treated as one, and the further dispersal of industry within it would be desirable.

222. The future development of this sub-region will clearly be affected considerably by the particular form of implementation chosen for the suggested project of a Birmingham overspill scheme to take at least 50,000 people somewhere in the Stafford-Stoke area, over and above the Stafford expansion already under consideration. The sub-regional plan that is required in this connection will need to take into account, in particular, the extensive urban renewal needs of the Potteries and their present dependence on industries in which employment has ceased to grow.

THE RURAL WEST

223. If the proposals in this report for expansions of Worcester City and Wellington-Oakengates are implemented, the balance of development in the region will shift a little to the west. The shift in emphasis will be the more pronounced if in the long term the Shrewsbury area is further developed to open up a new axis of growth along the Welsh Marches. One way or another, the policy of checking the region's tendency to concentration by promoting a modest degree of dispersal westwards is thus likely to bring new economic activity and opportunity—and ultimately improved communications—within closer reach of the Herefordshire and Shropshire rural communities. There will still be a case, however, for selective building-up of some of the smaller towns in order to maintain levels and concentrations of population sufficient to support the kinds of services and investment that the area will continue to require; and this may well require some industrial steering support. There should be scope in this area, too, for further small-scale enterprise of the kind encouraged by the Development Commission through the Rural Industries Bureau and other organisations; and considerable potential for the development of touring and holiday facilities, for weekend as well as vacation enjoyment.

THE ROAD IMPLICATIONS

224. The first round of additional development proposed in the suggested strategy of westward dispersal consists of expansions in three areas—Worcester, between Stafford and Stoke and Wellington-Oakengates. None of them (and this was of course one of the reasons for their selection) in itself creates any fresh needs for improvement of major strategic routes. The first two areas are close to new motorways. The third is close to Dawley, where the development of the New Town itself will increase the priority that should be given to improving its road communications with the conurbation.

225. This improvement of the Birmingham-Shrewsbury route would fit in conveniently with the longer-term possibility suggested—the opening-up of a general front of development northwards and southwards from Shrewsbury along the Welsh Marches. That in turn could require eventually a substantial improvement or replacement of at least parts of the A49 between Deeside and the Severn estuary, and improved cross connections from it to the M5 and M6 (e.g. from Leominster to Worcester and from Hereford to Tewkesbury). The question of west-east connections across the Welsh Marches would of course become of greater significance if there were also to be a new town in Mid Wales.

226. In the more central part of the region, the main additional road improvement called for by the strategy proposed is a north-south axial road in the Coventry belt to help this area to develop as an integrated sub-region. Part of this (the Bedworth by-pass) is already in the road programme.

227. *Above all, it must remain a key part of the regional strategy to continue with the maximum practicable improvement of the region's existing major routes and urban road systems, not least within the Birmingham conurbation* itself. Marginal adjustments in the distribution of the growing population will not dispose of the need for very extensive further schemes to prevent the region's main existing centres from seizing up.

AGRICULTURAL LAND

228. Not only in the rural west but in nearly every part of the region, expansion proposals at the places and on the scale suggested may involve conflict of the kind mentioned earlier in this report—between the land needs of development and of agriculture. The resolution of the conflict must depend on detailed examination of the actual development possibilities in each case. It may however be the less difficult given the context of a general regional development

programme indicating broadly the likely size and location of the total development land requirements for a goodish time ahead.

THE PROPOSED GREEN BELTS

229. Once the further strategy for location of the region's growing population has been settled, it should be possible to move nearer to a settlement of the proposed green belts round the Birmingham conurbation, Coventry and the Potteries. As regards the Birmingham green belt, the precise inner boundaries may later need to be adjusted in the light of the findings of the conurbation transport and land use survey with regard to the economic possibilities of a modest thickening up of development at some points on the conurbation's periphery; but subject to that it would seem desirable to establish the green belt firmly now as part of the statutory development plans of the authorities concerned. So far as Coventry is concerned, the green belt proposals will need reconsideration if there is to be a sub-regional plan for balancing the development of Coventry itself and of the smaller towns nearby; it may be necessary to formulate the proposals on a wider basis. The appropriateness of the sketched North Staffordshire green belt will depend very much on what is found on closer examination to be practicable by way of substantial expansion in the area between Stafford and Stoke.

MACHINERY FOR THE CARRYING OUT OF PLANNED EXPANSION PROJECTS

230. On the approach adopted in this report, the satisfaction of the region's housing and growth needs will be heavily dependent on adequate progress in a wide range of specific and sizeable schemes of expansion. The Dawley and Redditch new town projects are in the hands of corporations set up, staffed and financed specifically for development purposes. The Droitwich and Daventry expansions now commencing, and the Stafford, Lichfield and Tamworth schemes now being worked out, are not at present planned to be executed by means of that kind of machinery. The matter of who should do the expansions now proposed at Worcester, at Wellington-Oakengates, or in the Stafford-Stoke area, is of course still an open one—as is also, a fortiori, that of the machinery for a possible long-term development based on Shrewsbury. It may be questioned, however, whether in all the circumstances of the region as a whole, as well as of the particular places concerned, it would be prudent or reasonable to leave the task of expansion to be the responsibility of the various local authorities, burdened as they are with other problems. As mentioned earlier, there may be a case here for the more widespread operation of special development agencies.

THE LIKELY CHANGES IN THE POPULATION PATTERN

231. Following is a brief outline of the way the pattern of the region's growing population could go between now and 1981, if the various arrangements and proposals set out in this report are implemented. It should be noted, however, that it assumes that there will be no net immigration into the region. If net immigration does in fact occur, or if the scale of new housing undertaken over the period materially exceeds the 600,000 rather conservatively suggested, the pattern may well alter more markedly. It might then be necessary, for example, to bring forward to the early nineteen seventies a start on longer-term development of the sort suggested in the Shrewsbury area. The 1981 figures will in such circumstances be higher than those shown below for most parts of the region, and particularly for West and East Shropshire.

(a) As regards the existing area of the Birmingham conurbation, very large net overspill from Birmingham itself to other parts of the region is likely to be only partially offset—at least during the period under review—by an increase in the numbers of people accommodated in other parts of the conurbation. The conurbation's total population, which by 1964 was 2,384,000, can therefore be expected to fall by 1981 to about 2,235,000.

(b) West Warwickshire (i.e. the county *less* those parts which lie in the conurbation or in the Coventry belt) will have not only its own natural increase and some private overspill from the conurbation, but also the development of the Chelmsley Wood estate on the Birmingham periphery. The total net rise of population could therefore be from nearly 184,000 in 1964 to somewhere near 260,000 in 1981.

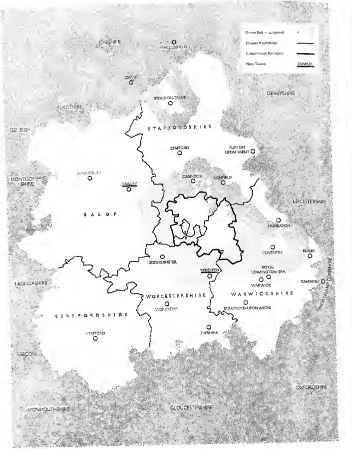

Fig. 20. Green belts: mid-1965
The proposed green belts are those which have been submitted formally or informally by local planning authorities to the Minister of Housing and Local Government

(c) The Coventry belt had a population in 1964 of some 612,000, and on the assumption that there will be local provision for all the natural increase (mainly arising from Coventry itself) the figure by 1981 could well be nearly 715,000.

(d) South Staffordshire (excluding districts within the conurbation but including Burton-upon-Trent) had a 1964 population of about 427,000. This should rise considerably as a result of private overspill, the various small public overspill schemes currently proceeding, and the proposed expansions of Stafford, Lichfield and Tamworth. Taking into account natural increase as well, the total population of the area by 1981 could be of the order of 630,000.

(e) In North Staffordshire—including Stoke—the population was just over 475,000 in 1964, and natural increase plus an expansion project somewhere within the Stafford-Stoke area could take this up by 1981 to 590,000. The population within the present boundaries of Stoke itself, however, may well barely rise above its 1964 level of about 265,000, since most of its growth is likely to be accommodated in surrounding areas.

(f) In Worcestershire the growth looks like being quite considerable. The population in 1964 (including that of Worcester City) was nearly 387,000. The land allocations suggested envisage a substantial continuance of private overspill within the area. With natural increase, plus the Redditch new town and Droitwich town development already under way, and the Worcester City expansion scheme now proposed, the total by 1981 could well be 550,000 or more.

(g) Proportionately, however, the biggest population increase in the region will be in East Shropshire, where natural increase and private overspill, but more importantly the development of the Dawley new town and the proposed expansion of Wellington-Oakengates, could increase the numbers from something just over 120,000 in 1964 to perhaps 280,000 by 1981.

(h) In West Shropshire, however (including Shrewsbury), the 1964 population of 184,000 seems unlikely to rise by 1981 to more than about 205,000—unless by then the suggested long-term project for expansion in a wide area around Shrewsbury has already got under way.

(i) Similarly Herefordshire's population, which in 1964 was about 135,000, is not expected to increase by 1981 to much above 150,000.

(j) At least 22,000 of the population that might otherwise have been located in the region by 1981 is likely instead to be outside the region's boundaries, as a result of the town development schemes whereby some of the Birmingham overspill is being accommodated in Daventry and Weston-super-Mare.

232. This all implies considerable shifts in the population distribution pattern as between the areas of the various local planning authorities. The levels of population which these authorities must expect to have to provide for within their respective boundaries cannot, of course, be forecast with any precision. Nevertheless some working estimates are necessary as a basis for discussion, and these are as follows:

(a) As indicated in the previous paragraph, in the case of Shropshire and Herefordshire the population increases to be catered for up to 1981 could be of the order of 180,000 and 15,000 respectively—giving county totals by that date of about 485,000 in Shropshire and 150,000 in Herefordshire.

(b) In the administrative county of Staffordshire—i.e. including the whole of the North and South Staffordshire areas and those currently Staffordshire districts forming part of the conurbation, but excluding the county boroughs of Stoke and Burton-upon-Trent—the increase could be nearly 270,000, and the likely total 1981 population 1,314,000. As mentioned above, the population of Stoke is likely in 1981 to be very little more than in 1964 (265,000), but natural increase at Burton may raise the population by about 9,000 to nearly 60,000.

(c) In the administrative county of Warwickshire—i.e. West Warwickshire plus its conurbation county district plus the Coventry belt outside Coventry City—the increase might be nearly 150,000, giving a 1981 population close on 705,000. Within the present boundaries of Coventry City itself, an increase of around 47,000 would give a total population of some 360,000.

(d) In the administrative county of Worcestershire (again including those of its present districts which are in the conurbation) an increase not far short of 130,000 seems possible, giving a total 1981 population of around 390,000. This, however, is on the assumption that all of the expansion recommended for Worcester City is actually accommodated within the city boundary—which would mean an increase by 1981 of around 55,000 and a total population of something over 120,000.

(e) As for the county boroughs within the conurbation, it is clear that redevelopment must result in a considerable absolute *reduction* in the population of the City of Birmingham, perhaps by about 200,000 to just over 900,000 by 1981. All of the other county boroughs are likely to be able to accommodate increases. In the case of West Bromwich and Solihull these could be quite substantial—amounting perhaps to 30,000 and 25,000 respectively (i.e. well above their natural increases) giving total populations by 1981 of 127,000 and 122,000. In the other four county boroughs the growth within the existing county borough boundaries may be only marginal, amounting to a total increase by 1981 of perhaps 10,000 (i.e. well *below* their combined natural increases). This could give 1981 populations of just over 150,000 for Wolverhampton, about 122,000 for Walsall, 70,000 for Smethwick, and 67,000 for Dudley; but the individual figures will become academic if current local government reorganisation proposals for this area are carried through, and they are in any event subject to the recommendations in this report for a comprehensive approach to the planning of the Black Country as a whole. The more meaningful estimate is the more general one given earlier—viz. that while the population of Birmingham City may drop by 1981 by about 200,000, that of the rest of the conurbation may rise by about 50,000.

7 Summary

233. The five counties of the West Midlands have between them a population approaching five million, heavily concentrated in and around the Birmingham conurbation. While the rural areas are in fairly good shape, many parts of the conurbation and the other towns, including the Potteries, are still depressingly in need of physical renewal. The region is nevertheless highly prosperous almost everywhere. Manufacturing industries predominate, especially those concerned with metals and engineering. The growth in employment has been considerable, even though nearly 100,000 jobs have since the war been steered away to other parts of the country which might otherwise have remained or been created in the region. In spite of a continuing high rate of population expansion, largely through natural increase, there is a persistent shortage of labour, especially in and around the Birmingham conurbation and Coventry. Until recently this encouraged a net immigration to the region, mainly from Ireland and the Commonwealth; but currently migration in and out are nearly in balance. Growth in the demand for labour is expected to continue, however, and so is the shortage. Continued expansion of the region's economy therefore looks like being especially dependent on higher efficiency.

234. This is in spite of a prospect that by natural increase the total population of all ages will by 1981 be nearing six million—and reaching at least seven million by the end of the century. There will be need for a vigorous continued programme of housing improvement and the building of new dwellings. The number of new dwellings required in the period up to 1981 will be at least 600,000—nearly half for natural increase of the existing population, and the rest because of current housing shortages and continuing redevelopment, especially slum clearance. This means a sustained regional rate of housebuilding of around 35,000 annually—which should not be difficult given proper organisation and modern methods of construction. If there is further net immigration the building rate will of course need to be higher.

235. The problem is where, The growth and housing needs of the rural west, of North Staffordshire, and of the Coventry belt, can reasonably be met within their own areas. The situation in and around the Birmingham conurbation is more complex. The conurbation itself is so much in need of elbow room for its modernisation that some of its very large growth and housing needs must be catered for outside. This can be done by way of outward extension of the urban mass into the surrounding countryside (at present proposed as a green belt); by a thickening up of the ring of commuter and satellite development lying just beyond the green belt; by the building up of a big new independent centre or centres well away from the conurbation's immediate sphere of influence; or a mixture of these. Whatever strategy is chosen must be such as will still make sense after 1981 when yet further large dispositions of people and houses will be required as a result of a continuing high rate of natural increase—quite apart from the possibility of the region's population growth being accelerated by renewed net immigration.

236. It must also take account of the region's other main problems. For along with its population growth and housing need, the region faces increasing pressure on already heavily loaded communications, especially within the central urban complex. The scale and pace of improvements to these communications will have a powerful influence on the rate of urban renewal

generally, for which there is a heavy continuing need. The central urban complex has also a derelict land problem, such as exists nowhere else in the region outside the Potteries. It is likewise the part of the region where deficiencies in the school and health and welfare facilities are most manifest—but where there is also the heaviest demand on them. At the same time there are other and very extensive parts of the region, mainly the rural areas from the Severn Valley westwards, where local growth in population and employment has been quite small, and such problems as exist arise not from congestion and obsolescence but from the difficulty, in conditions of relative population sparsity, of supporting adequate commercial and community facilities to the rising standards expected.

237. This all suggests that an underlying problem of the whole region is the heavy concentration of employment and employment growth in and around the Birmingham conurbation; and that plans for the region's future development should aim at opening the pattern out.

238. Such an opening-out must form part of an evolving strategy. In part, it must depend on further experience and study of the potentialities of the region's present and future communications and transport facilities. Moreover, much of the new development taking place in the West Midlands in the next ten to fifteen years will be a function of investment decisions and land allocations already made. These have been mainly based on a policy of absorbing the growth from the conurbation into a ring of development fairly close in, and such a policy still has much to commend it for some of the additional development now needed. Dispersal of any sizeable numbers of the growing population to places much further away will require parallel dispersal of steerable industrial employment, but the employment needs of the existing overspill reception areas are already considerable and under Government policy the unemployment areas have a prior claim on such industry as can be steered away from the region altogether. Yet it would seem reasonable for the further strategy needed for the region up to 1981 to be based on a gradual pushing out from the area of close-in development, towards new locations so chosen that they can form part of a still wider pattern of dispersal for the longer term—westwards.

239. What is therefore proposed is that the main lines of development and planning for the region till 1981, including what is already in train, should be as follows:—

(a) Redevelopment of the Birmingham conurbation on more comprehensive lines, within a green belt confirmed broadly as it stands now, to accommodate a population about 150,000 less than at present, *plus*, as recently agreed, 50,000 at Chelmsley Wood on the eastern periphery.

(b) Completion of the Dawley and Redditch new towns and the Droitwich and Daventry town expansions.

(c) Implementation of schemes of town development at Stafford, Lichfield and Tamworth.

(d) Housebuilding on some 140,000 sites in other areas round the Birmingham conurbation green belt, by way of thickening up the existing settlement pattern.

(e) New projects of development on an arc round the west of the conurbation, each taking at least 50,000 overspill population from it by 1981, in or near Worcester City, Wellington-Oakengates (the planning to be related with that of Dawley), and the area between Stafford and Stoke-on-Trent (the plans to be related to those for the expansion of Stafford itself and the redevelopment of the Potteries).

(f) Provision for all the prospective population growth of the Coventry belt by way of development on an integrated sub-regional plan covering Coventry itself, Nuneaton and Bedworth, Warwick and Leamington, Rugby, and the areas between.

(g) Accommodation of the smaller population growth of the rural west by way of selective development of those towns and villages best suited for concentration of social investment.

(h) A study of the possibilities of building up, for the longer term, a new regional centre in Shropshire based on Shrewsbury and Dawley, designed to facilitate an eventually faster rate of westward dispersal in the region and the development of a new axis of national growth northwards towards the Dee and southwards towards the Severn estuary.

(i) An investigation into the possibilities of promoting a greater mobility in West Midlands industry—with particular reference to the circumstances of firms which

cannot conveniently go a long distance for expansion or relocation but might find less difficulty in a move within the region itself.

(j) Early inclusion, in the regional road programme, of works needed to promote the development pattern envisaged.

Statistical Appendix

This Appendix brings together some of the detailed material which forms the background to the Study. A number of the tables are related to the figures illustrating the text. The first section contains the definitions of the economic planning regions of the country and of the divisions of the West Midland economic planning region used in this Study; the second deals with population and the third with employment.

DEFINITION OF AREAS

2. For the purposes of economic planning eight regions have been established covering all areas of Great Britain outside South East England. The Study deals with the West Midland economic planning region which, in this connection, has been further sub-divided. These tables give the composition, and the estimated civilian population, of each of these divisions in 1964.

3. *Table 1* gives the composition of the economic planning regions of Great Britain (see Fig. 2). No decision has yet been taken on economic planning machinery for the South East.

4. *Table 2* shows the divisions of the West Midland Region used in the Study, and *Tables 3, 4 and 5* give the composition of them (see Fig. 3). In these and subsequent tables the divisions, sub-divisions and sub-regions of the West Midlands are arranged in descending order of population size.

5. The main divisions of the West Midlands are the Central division which embraces the conurbation and contains four fifths of the Region's population; North Staffordshire; and the Rural west.

6. The Central division has been broken down to three sub-divisions—the conurbation, the Coventry belt and a remainder area which, in turn, has been broken down to four sub-regions.

POPULATION STATISTICS

7. The chief source of population statistics is the Census, which has been held every 10 years (with the exception of 1941) since 1801. The Registrar General's published estimates of *home population* based on the Census, include, however, members of the British, Commonwealth, and foreign forces in the area, and it is more appropriate for economic planning purposes to use his specially prepared mid-year estimates of *civilian population*.

8. *Table 6* shows the distribution of population in 1951 and 1964 and the changes occurring between those dates, principally by natural change and migration, for the economic planning regions of Great Britain. *Tables 7, 8 and 9* deal, respectively, with the periods 1951–56, 1956–61 and 1961–64. The changes by migration over these three periods are expressed in terms of mean annual rates in *Table 10* (see Figs. 5, 6 and 7).

9. Population changes 1951–64 within the divisions, sub-divisions and sub-regions of the West Midland economic planning region are similarly dealt with in *Tables 11 to 15* (see Figs. 12, 13 and 14).

10. As the estimates used are for civilian population only, allowance has had to be made for reduction in the size of the armed forces over the period. In the absence of information on the destinations of demobilised personnel, the net gain to the civilian population of the country as a whole from this source has been allocated to areas *pro rata* to their populations. The estimates of net migration have been calculated by deducting from the total population change the estimates of natural change and the allowances made for gains from the armed forces.

11. *Table 16* shows the growth of the population

of the West Midland Region since 1801, and how the area's share of the total population of Great Britain has varied (see Fig. 4).

EMPLOYMENT STATISTICS

12. The methods by which Ministry of Labour compile employment statistics do not readily enable figures to be produced for areas other than Ministry of Labour regions. The estimates used in this Study relate throughout to Ministry of Labour regions as constituted in 1961 (see Fig. 8): these are hroadly equivalent to regions as used for the 1961 Census but they are made up of Ministry of Lahour local office areas whose boundaries do not generally correspond with those of local autbority areas. In some parts of the country these regions differ materially from the economic planning regions but in the case of the West Midlands the Ministry of Labour Midland region differs only marginally from the West Midland economic planning region.

13. The estimated numbers of employees in employment are derived from samples of national insurance cards exchanged during June, July and August, and so are subject to sampling and estimation errors wbich can be substantial. In Industrial Orders where numbers are small, the errors can be proportionately higb. Part-time and occasional workers as well as scbool children and students who bave jobs, are included as whole units and the estimates also include some persons not in employment at mid-year, who were not registered as unemployed in June, but wbo excbanged their national insurance cards in June, July or August. For Great Britain as a wbole these estimates account for 90 per cent of the total working population (i.e. people of working age who eitber work for pay or gain or who register themselves as unemployed.) The balance is made up of employers, persons working on their own account, memhers of Her Majesty's Forces and Women's Services and tbe unemployed.

14. In some tables the total number of employed is analysed hy the 24 Industrial Orders defined in the Standard Industrial Classification issued by the Central Statistical Office in 1958. This classification is based on industries and not on occupations, and administrative, technical, clerical and ancillary staff are included in the figures of employment for the industry concerned. The Ministry of Labour's data for years prior to 1959 is based on the 1948 version of the Standard Industrial Classification. For the purposes of the Study Ministry of Labour bave adjusted this as far as is possible to produce estimates for 1953 and for the period 1953–59 which are reasonably comparable with those available for 1959 and later years.

15. The regional estimates do not take full account of cases wbere a person is employed in a different region from tbat in which his national insurance card is exchanged. Before 1955, no adjustments at all were made to regional estimates on this account, but since tbat date allowance bas been made for the greater proportion of these cases, and in order to provide reasonably comparable figures for years before 1955, approximate retrospective adjustments bave been made to the figures.

16. Ministry of Labour's estimates of numbers employed in each of their regions of Great Britain at mid-year for tbe years 1953–63 are given in *Tables 17, 18 and 19*. *Table 17* deals witb total employed; *Table 18* and *Table 19* cover males and females respectively (see Fig. 9).

17. In *Table 20* the percentage changes in estimated numbers employed which occurred over the periods 1953–59 and 1959–63 for eacb Ministry of Labour region are analysed in terms of four broad categories—primary, manufacturing, construction and service industries. Tbe composition of these categories, in terms of Industrial Orders, is seen in *Table 21* et seq.

18. *Table 21* gives tbe estimated total numbers employed in eacb Industrial Order in Ministry of Labour Midland region for the years 1953, 1959 and 1963. Equivalent estimates are given for Great Britain as a whole. *Table 22* and *Table 23* cover males and females respectively.

19. The percentage changes whicb occurred over the periods 1953–59 and 1959–63 in the numbers employed by Industrial Orders in the Midland region and in Great Britain are given in *Table 24*. Similar estimates are given for males in *Table 25* and for females in *Table 26*. Tbe same information expressed in terms of mean annual compound rates of change is given in *Tables 27, 28 and 29*. These percentage cbanges can indicate the order of magnitude of the change only in a very broad way. They are given to one decimal place for the industries in which the numbers employed in the Midland region exceeds 10,000 but they should be interpreted with the utmost caution.

20. The "activity rate" i.e. the proportion of the home population constituted by employees (employed and unemployed) for each Ministry of Labour region for the years 1953–63 is given in *Table 30*. "Activity rates" for males, including rates applicable to the male population aged 65 and over, are given in *Table 31*. The rates for females, including those applicable to the female population aged 60 and over, are given in *Table 32*. As these "activity rates" are calculated on Ministry of Labour estimates of employees they do not cover employers and self employed.

21. *Table 33* provides a comparison of unemployment rates for total, male and female employees in the North Western region and for Great Britain as a whole for the years 1953–63 (see Fig. 11).

22. Table 34 analyses the estimated movement of national insurance cards of employees between the Midland region and other Ministry of Labour regions over the period 1953–63. Table 35 provides estimates of the total inward and outward movements involved over the period for each of the Ministry of Labour regions. For a number of reasons, the movement of cards is an imperfect reflection of migration. Only employees who have insurance cards in each of the two years being compared can be included in the estimates. Hence, migrants into Great Britain would not appear in the statistics in the year in which they entered the country: neither would those persons who moved to another part of the country to take their first job, nor those who moved on retiring from work. Established civil servants (who do not have cards) would also be excluded. In addition, an insurance card may be exchanged in a different region in successive years, though the employee continues to work in the same locality. Alternatively, a person who merely transfers his job across a regional boundary without moving his home can be included as a migrant.

23. *Table 36* gives figures of industrial buildings completed in the years 1953–63 (inclusive), and the estimated employment provided in each region of Great Britain.

NOTE. Figures have been rounded to the nearest final digit and, in some tables, there may be a slight discrepancy between the sum of the constituent items and the total as shown.

LIST OF TABLES

Table 1. **Economic planning regions of Great Britain.**

Composition of economic planning regions	*1964 civilian population (thousands)*	*Composition of economic planning regions*	*1964 civilian population (thousands)*
(1)	(2)	(1)	(2)
All areas	52,319	**East Midland Region** *continued*	
Scotland	5,180	Rutland	24
Northern Region	3,287	**West Midland Region**	4,913
Cumberland	296	Herefordshire	135
Durham	1,532	Shropshire	307
Northumberland	826	Staffordshire	1,796
Westmorland	67	Warwickshire	2,079
Yorkshire, North Riding	567	Worcestershire	596
Yorkshire and Humberside Region	4,672	**South West Region**	3,584
Lincolnshire: Parts of Lindsey		Cornwall	341
excluding Lincoln C.B.	438	Devon	832
Yorkshire, East Riding	536	Dorset	322
Yorkshire, West Riding	3,698	Gloucestershire	1,029
		Somerset	619
North West Region	6,662	Wiltshire	441
Cheshire	1,430		
Derbyshire (part) (*see Note 1*)	70	**South East England** (*see Note 2*)	18,129
Lancashire	5,162	Bedfordshire	406
		Berkshire	548
Wales and Monmouthshire	2,668	Buckinghamshire	523
Anglesey	52	Cambridgeshire	198
Breconshire	54	Isle of Ely	90
Caernarvonshire	120	Essex	2,362
Cardiganshire	53	Hampshire	1,388
Carmarthenshire	167	Hertfordshire	892
Denbighshire	177	Huntingdonshire	85
Flintshire	154	Kent	1,775
Glamorgan	1,242	London	3,177
Merionethshire	38	Middlesex	2,237
Monmouthshire	456	Norfolk	566
Montgomeryshire	44	Oxfordshire	326
Pembrokeshire	93	Peterborough, Soke of	78
Radnorshire	18	Suffolk, East	354
		Suffolk, West	132
East Midland Region	3,226	Surrey	1,768
Derbyshire (part) (*see Note 1*)	831	Sussex, East	692
Leicestershire	701	Sussex, West	435
Lincolnshire: Parts of Holland	105	Isle of Wight	95
Lincolnshire: Parts of Kesteven and Lincoln C.B.	217		
Northamptonshire	416		
Nottinghamshire	932		

NOTES

1. The area of Derbyshire falling within the North West Region comprises Buxton M.B., Glossop M.B., New Mills U.D., Whaley Bridge U.D. and Chapel en le Frith R.D.
2. At time of going to press, no decision has yet been taken on planning machinery for the South East.

Table 2. **Divisions of the West Midland Region**

Area	*1964 civilian population (thousands)*
(1)	(2)
All areas	4,913
Central division (*see Table 3*)	4,117
West Midlands conurbation	2,384
Coventry belt	612
Rest of central division	1,121
South Staffordshire	*428*
Worcestershire (part)	*387*
West Warwickshire	*184*
East Shropshire	*123*
North Staffordshire (*see Table 4*)	477
Rural west (*see Table 5*)	319

Table 3. **Central division**

Constituent areas	1964 civilian population (thousands)
(1)	(2)
All areas	4,116·6
West Midlands conurbation	2,383·5
Warwickshire (part)	1,282·7
Birmingham C.B.	1,105·9
Solihull C.B.	99·3
Sutton Coldfield M.B.	77·5
Staffordshire (part)	891·7
Smethwick C.B.	67·7
Walsall C.B.	119·9
West Bromwich C.B.	97·6
Wolverhampton C.B.	150·2
Aldridge U.D.	58·9
Amblecote U.D.	3·0
Bilston M.B.	32·7
Brierley Hill U.D.	59·5
Coseley U.D.	41·3
Darlaston U.D.	21·5
Rowley Regis M.B.	49·1
Sedgley U.D.	31·6
Tettenhall U.D.	15·6
Tipton M.B.	38·0
Wednesbury M.B.	34·8
Wednesfield U.D.	35·1
Willenhall U.D.	35·2
Worcestershire (part)	209·2
Dudley C.B.	63·9
Halesowen M.B.	45·2
Oldbury M.B.	54·2
Stourbridge M.B.	45·9
Coventry belt	612·1
Coventry C.B.	315·7
Bedworth U.D.	34·9
Kenilworth U.D.	17·5
Nuneaton M.B.	60·0
Royal Leamington Spa M.B.	44·3
Rugby M.B.	54·9
Warwick M.B.	16·9
Rugby R.D.	23·7
Southam R.D.	15·4
Warwick R.D.	28·9
Rest of central division	1,121·0
South Staffordshire	427·7
Burton upon Trent C.B.	50·5
Brownhills U.D.	28·7
Cannock U.D.	45·1
South Staffordshire *continued*	
Lichfield M.B.	18·1
Rugeley U.D.	15·1
Stafford M.B.	49·5
Stone U.D.	9·9
Tamworth M.B.	16·1
Uttoxeter U.D.	8·3
Cannock R.D.	34·8
Lichfield R.D.	42·4
Seisdon R.D.	40·7
Stafford R.D.	18·7
Stone R.D.	19·0
Tutbury R.D.	19·2
Uttoxeter R.D.	11·6
Worcestershire (part)	386·7
Worcester C.B.	67·6
Bewdley M.B.	5·2
Bromsgrove U.D.	36·8
Droitwich M.B.	8·1
Evesham M.B.	13·0
Kidderminster M.B.	43·4
Malvern U.D.	28·0
Redditch U.D.	36·0
Stourport-on-Severn U.D.	13·4
Bromsgrove R.D.	39·0
Droitwich R.D.	14·5
Evesham R.D.	18·0
Kidderminster R.D.	12·3
Martley R.D.	12·5
Pershore R.D.	19·2
Tenbury R.D.	5·3
Upton upon Severn R.D.	14·5
West Warwickshire	183·9
Stratford-upon-Avon M.B.	17·4
Alcester R.D.	18·3
Atherstone R.D.	25·7
Meriden R.D.	64·2
Shipston on Stour R.D.	9·0
Stratford-on-Avon R.D.	27·1
Tamworth R.D.	22·1
East Shropshire	122·7
Bridgnorth M.B.	8·5
Dawley U.D.	10·5
Newport U.D.	5·1
Oakengates U.D.	13·9
Wellington U.D.	15·6
Wenlock M.B.	15·1
Bridgnorth R.D.	13·8
Shifnal R.D.	13·7
Wellington R.D.	26·5

Table 4. **North Staffordshire**

Constituent areas (1)	1964 civilian population (thousands) (2)
All areas	476·9
Stoke-on-Trent C.B.	263·9
Biddulph U.D.	15·1
Kidsgrove U.D.	20·8
Leek U.D.	19·1
Newcastle-under-Lyme M.B.	77·0
Cheadle R.D.	41·7
Leek R.D.	20·8
Newcastle-under-Lyme R.D.	18·5

Table 5. **Rural west**

Constituent areas (1)	1964 civilian population (thousands) (2)
All areas	319·2
Herefordshire	135·0
Shropshire (part)	184·2
Bishop's Castle M.B.	1·2
Church Stretton U.D.	2·8
Ellesmere U.D.	2·4
Ludlow M.B.	6·9
Market Drayton U.D.	6·2
Oswestry M.B.	11·9
Shrewsbury M.B.	50·6
Wem U.D.	2·7
Whitchurch U.D.	7·2
Atcham R.D.	23·8
Clun R.D.	8·9
Drayton R.D.	9·5
Ellesmere R.D.	7·4
Ludlow R.D.	13·4
Oswestry R.D.	17·8
Wem R.D.	11·5

Table 6. Civilian population changes
Great Britain 1951–64 (thousands)

Area	Distribution 1951		Changes 1951–64: Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration		Distribution 1964	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Great Britain	48,333·3	100·0	3,985·7	8·2	3,306·9	6·8	410·5	268·3	0·6	52,319·0	100·0
Scotland	5,064·3	10·5	115·2	2·3	458·1	9·0	43·0	−386·0	−7·6	5,179·5	9·9
Northern Region	3,095·0	6·4	192·2	6·2	258·7	8·4	26·1	−92·6	−3·0	3,287·2	6·3
Yorks. & Humberside Region	4,459·1	9·2	212·7	4·8	275·4	6·2	37·2	−99·8	−2·2	4,671·8	8·9
North West Region	6,380·0	13·2	281·9	4·4	349·4	5·5	53·2	−120·6	−1·9	6,661·9	12·7
Wales and Monmouthshire	2,569·0	5·3	98·7	3·8	118·1	4·6	21·4	−40·7	−1·6	2,667·7	5·1
East Midland Region	2,891·7	6·0	333·8	11·5	229·2	7·9	24·8	79·8	2·8	3,225·6	6·2
West Midland Region	4,383·0	9·1	529·8	12·1	396·1	9·0	37·7	96·0	2·2	4,912·8	9·4
South West Region	3,228·9	6·7	354·9	11·0	154·1	4·8	27·5	173·3	5·4	3,583·8	6·8
South East England	16,262·3	33·6	1,866·4	11·5	1,067·8	6·6	139·7	658·9	4·1	18,128·7	34·7

Table 7. **Civilian population changes**
Great Britain 1951–1956

(*thousands*)

Area	Distribution 1951		Changes 1951–56							Distribution 1956	
			Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration			
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Great Britain	48,333·3	100·0	901·0	1·9	1,013·4	2·1	74·6	−187·0	−0·4	49,234·3	100·0
Scotland	5,064·3	10·5	19·0	0·4	153·3	3·0	5·6	−140·0	−2·8	5,083·3	10·3
Northern Region	3,095·0	6·4	47·4	1·5	89·9	2·9	4·9	−47·4	−1·5	3,142·4	6·4
Yorks. & Humberside Region	4,459·1	9·2	45·6	1·0	85·0	1·9	7·1	−46·6	−1·0	4,504·7	9·1
North West Region	6,380·0	13·2	51·6	0·8	101·7	1·6	10·1	−60·1	−0·9	6,431·6	13·1
Wales & Monmouthshire	2,569·0	5·3	18·8	0·7	39·7	1·5	4·1	−24·9	−1·0	2,587·8	5·3
East Midland Region	2,891·7	6·0	88·2	3·1	71·4	2·5	4·6	12·2	0·4	2,980·0	6·0
West Midland Region	4,383·0	9·1	125·2	2·9	121·5	2·8	7·0	−3·3	—	4,508·2	9·2
South West Region	3,228·9	6·7	62·9	1·9	46·0	1·4	5·2	11·8	0·4	3,291·8	6·7
South East England	16,262·3	33·6	442·3	2·7	305·0	1·9	26·0	111·3	0·7	16,704·6	33·9

Table 8. **Civilian population changes**
Great Britain 1956–61

(*thousands*)

Area	Distribution 1956		Changes 1956–61: Total		Changes 1956–61: By births and deaths		Changes 1956–61: Estimated gain from armed forces	Changes 1956–61: Estimated net balance by migration		Distribution 1961	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Great Britain	49,234·3	100·0	1,812·1	3·7	1,300·2	2·6	281·7	230·2	0·5	51,046·4	100·0
Scotland	5,083·3	10·3	72·1	1·4	185·3	3·6	28·7	−141·9	−2·8	5,155·4	10·1
Northern Region	3,142·4	6·4	92·1	2·9	103·7	3·3	18·0	−29·5	−0·9	3,234·5	6·3
Yorks. & Humberside Region	4,504·7	9·1	76·8	1·7	107·4	2·4	25·5	−56·1	−1·3	4,581·4	9·0
North West Region	6,431·6	13·1	110·0	1·7	133·7	2·1	36·6	−60·3	−0·9	6,541·6	12·8
Wales and Monmouthshire	2,587·8	5·3	37·7	1·5	44·6	1·7	14·7	−21·7	−0·8	2,625·4	5·1
East Midland Region	2,980·0	6·0	140·6	4·7	88·3	3·0	17·1	35·1	1·2	3,120·5	6·1
West Midland Region	4,508·2	9·2	234·8	5·2	154·5	3·4	25·9	54·4	1·2	4,743·0	9·3
South West Region	3,291·8	6·7	169·5	5·2	60·1	1·8	19·0	90·5	2·8	3,461·3	6·8
South East England	16,704·6	33·9	878·6	5·3	422·7	2·5	96·2	359·7	2·2	17,583·2	34·4

Table 9. **Civilian population changes**
Great Britain 1961–64

(*thousands*)

Area	*Distribution 1961*		*Changes 1961–64*							*Distribution 1964*	
			Total		*By births ond deaths*		*Estimated gain from armed forces*	*Estimated net blance by migration*			
	No.	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*	*No.*	*No.*	*Per cent*	*No.*	*Per cent*
(*1*)	(*2*)	(*3*)	(*4*)	(*5*)	(*6*)	(*7*)	(*8*)	(*9*)	(*10*)	(*11*)	(*12*)
Great Britain	51,046·4	100·0	1,272·6	2·5	993·3	1·9	54·1	225·1	0·5	52,319·0	100·0
Scotland	5,155·4	10·1	24·1	0·5	119·5	2·3	8·6	−104·1	−2·0	5,179·5	9·9
Northern Region	3,234·5	6·3	52·7	1·6	65·2	2·0	3·2	−15·7	−0·5	3,287·2	6·3
Yorks. & Humberside Region	4,581·4	9·0	90·4	2·0	83·0	1·8	4·5	2·9	0·1	4,671·8	8·9
North West Region	6,541·6	12·8	120·3	1·8	114·0	1·7	6·5	−0·2	—	6,661·9	12·7
Wales and Monmouthshire	2,625·4	5·1	42·3	1·6	33·8	1·3	2·6	5·9	0·2	2,667·7	5·1
East Midland Region	3,120·5	6·1	105·1	3·4	69·5	2·2	3·1	32·5	1·0	3,225·6	6·2
West Midland Region	4,743·0	9·3	169·8	3·6	120·2	2·5	4·7	44·9	1·0	4,912·8	9·4
South West Region	3,461·3	6·8	122·5	3·5	48·0	1·4	3·4	71·0	2·1	3,583·8	6·8
South East England	17,583·2	34·4	545·5	3·1	340·1	1·9	17·4	187·9	1·1	18,128·7	34·7

Table 10. **Civilian population: mean annual changes by migration**
Great Britain 1951–56, 1956–61 and 1961–64

(*thousands*)

Area	1951–56		1956–61		1961–64	
	No.	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*
(*1*)	(*2*)	(*3*)	(*4*)	(*5*)	(*6*)	(*7*)
Great Britain	−37·4	−0·08	46·0	0·09	75·1	0·15
Scotland	−28·0	−0·55	−28·4	−0·55	−34·7	−0·67
Northern Region	− 9·5	−0·30	− 5·9	−0·19	− 5·2	−0·16
Yorks. and Humberside Region	− 9·3	−0·21	−11·2	−0·25	1·0	0·02
North West Region	−12·0	−0·19	−12·1	−0·19	− 0·1	—
Wales and Monmouthshire	− 5·0	−0·19	− 4·3	−0·17	2·0	0·07
East Midland Region	2·4	0·08	7·0	0·23	10·8	0·34
West Midland Region	− 0·7	− 0·01	10·9	0·24	15·0	0·31
South West Region	2·4	0·07	18·1	0·54	23·7	0·67
South East England	22·3	0·14	71·9	0·42	62·6	0·35

Table 11. Civilian population changes *(thousands)*
West Midland Region 1951–64

Area	Distribution 1951		Changes 1951–64: Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration		Distribution 1961	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
West Midland Region	4,383·0	100·0	529·8	12·1	396·1	9·0	37·7	96·0	2·2	4,912·8	100·0
Central division	3,630·4	82·8	486·2	13·4	346·5	9·5	31·3	108·4	3·0	4,116·6	83·8
West Midlands conurbation	2,230·9	50·9	152·6	6·8	203·7	9·1	18·9	−70·0	−3·1	2,383·5	48·5
Coventry belt	494·8	11·3	117·3	23·7	58·5	11·8	4·4	54·4	11·0	612·1	12·4
Rest of central division	904·6	20·6	216·4	23·9	84·2	9·3	8·0	124·2	13·7	1,121·0	22·8
South Staffordshire	339·2	7·7	88·5	26·1	36·5	10·8	3·0	49·0	14·5	427·7	8·7
Worcestershire (part)	329·6	7·5	57·1	17·3	24·0	7·3	2·9	30·2	9·2	386·7	7·9
West Warwickshire	132·6	3·0	51·3	38·7	14·4	10·9	1·2	35·7	26·9	183·9	3·7
East Shropshire	103·2	2·4	19·5	18·9	9·3	9·1	0·9	9·3	9·1	122·7	2·5
North Staffordshire	455·4	10·4	21·5	4·7	30·3	6·6	3·9	−12·7	−2·8	476·9	9·8
Rural west	297·1	6·8	22·1	7·4	19·2	6·5	2·5	0·4	0·1	319·2	6·4

Table 12. Civilian population changes
West Midland Region 1951–56

(*thousands*)

Area	Distribution 1951		Changes 1951–56							Distribution 1956	
			Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration			
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
West Midland Region	4,383·0	100·0	125·2	2·9	121·5	2·8	7·0	−3·3	—	4,508·2	100·0
Central division	3,630·4	82·8	109·0	3·0	104·7	2·9	5·8	−1·5	—	3,739·3	82·9
West Midlands conurbation	2,230·9	50·9	35·5	1·6	63·7	2·9	3·6	−31·8	−1·4	2,266·4	50·3
Coventry belt	494·8	11·3	29·6	6·0	17·0	3·4	0·8	11·8	2·4	524·4	11·6
Rest of central division	904·6	20·6	43·9	4·9	24·0	2·7	1·4	18·5	2·0	948·5	21·1
South Staffordshire	339·2	7·7	17·3	5·1	10·1	3·0	0·5	6·7	2·0	356·5	8·1
Worcestershire (part)	329·6	7·5	12·2	3·7	7·6	2·3	0·5	4·1	1·2	341·8	7·6
West Warwickshire	132·6	3·0	12·0	9·1	3·4	2·6	0·2	8·6	6·5	144·6	3·2
East Shropshire	103·2	2·4	2·4	2·3	2·9	2·8	0·2	−0·7	−0·7	105·6	2·1
North Staffordshire	455·4	10·4	11·9	2·6	10·3	2·3	0·8	0·8	—	467·4	10·4
Rural west	297·1	6·8	4·4	1·5	6·3	2·1	0·5	−2·4	−0·8	301·5	6·7

Table 13. **Civilian population changes**
West Midland Region 1956–61

(thousands)

Area	*Distribution 1956*		*Changes 1956–61*							*Distribution 1961*	
			Total		*By births and deaths*		*Estimated gain from armed forces*	*Estimated net balance by migration*			
	No.	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*	*No.*	*No.*	*Per cent*	*No.*	*Per cent*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
West Midland Region	4,508·2	100·0	234·8	5·2	154·5	3·4	25·9	54·4	1·2	4,743·0	100·0
Central division	3,739·3	82·9	226·4	6·0	134·6	3·6	21·5	70·3	1·9	3,965·7	83·6
West Midlands conurbation	2,266·4	50·3	74·3	3·3	77·9	3·4	13·0	−16·6	−0·7	2,340·7	49·4
Coventry belt	524·4	11·6	58·5	11·1	23·8	4·5	3·0	31·7	6·0	582·9	12·3
Rest of central division	948·5	21·1	93·6	9·9	32·9	3·5	5·5	55·2	5·8	1,042·1	21·9
South Staffordshire	356·5	8·1	38·9	10·9	14·0	3·9	2·1	22·8	6·4	395·4	8·3
Worcestershire (part)	341·8	7·6	26·8	7·8	9·2	2·3	2·0	15·6	4·6	368·6	7·7
West Warwickshire	144·6	3·2	20·2	14·0	6·2	4·3	0·8	13·2	9·1	164·8	3·5
East Shropshire	105·6	2·1	7·7	7·3	3·5	3·3	0·6	3·6	3·4	113·3	2·4
North Staffordshire	467·4	10·4	0·7	—	12·4	2·6	2·7	−14·4	−3·1	468·1	9·9
Rural west	301·5	6·7	7·9	2·6	7·6	2·5	1·7	−1·4	−0·5	309·4	6·5

Table 14. Civilian population changes
West Midland Region 1961–64

(thousands)

Area	Distribution 1961		Changes 1961–64							Distribution 1964	
			Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration			
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
West Midland Region	4,743·0	100·0	169·8	3·6	120·2	2·5	4·7	44·9	1·0	4,912·8	100·0
Central division	3,965·7	83·6	150·9	3·8	107·2	2·7	4·0	39·7	1·0	4,116·6	83·8
West Midlands conurbation	2,340·7	49·4	42·8	1·8	62·1	2·6	2·3	—21·6	—0·9	2,383·5	48·5
Coventry belt	582·9	12·3	29·2	5·0	17·7	3·0	0·6	10·9	1·9	612·1	12·4
Rest of central division	1,042·1	21·9	78·9	7·6	27·3	2·6	1·1	50·5	4·8	1,121·0	22·8
South Staffordshire	395·4	8·3	32·3	8·2	12·4	3·0	0·4	19·5	4·9	427·7	8·7
Worcestershire (part)	368·6	7·7	18·1	4·9	7·2	1·9	0·4	10·5	2·8	386·7	7·9
West Warwickshire	164·8	3·5	19·1	11·6	4·8	2·9	0·2	14·1	8·6	183·9	3·7
East Shropshire	113·3	2·4	9·4	8·3	2·9	2·6	0·1	6·4	5·6	122·7	2·5
North Staffordshire	468·1	9·9	8·8	1·9	7·6	1·6	0·4	0·8	—	476·9	9·8
Rural west	309·4	6·5	9·8	3·2	5·3	1·7	0·3	4·2	1·4	319·2	6·4

Table 15. **Civilian population: mean annual changes by migration**
West Midland Region 1951–56, 1956–61 and 1961–64

(thousands)

Area	*1951–56*		*1956–61*		*1961–64*	
	No.	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*
West Midland Region	0·7	−0·01	10·9	0·24	15·0	0·31
Central division	−0·3	−0·01	14·1	0·37	13·2	0·35
West Midland conurbation	−6·4	−0·28	−3·3	−0·14	−7·2	−0·35
Coventry belt	2·4	0·48	6·3	1·25	3·6	0·60
Rest of central division	3·7	0·40	11·1	1·06	16·9	1·56
South Staffordshire	1·3	0·33	4·6	1·22	6·5	1·58
Worcestershire (part)	0·8	0·24	3·1	0·88	3·5	0·93
West Warwickshire	1·7	1·23	2·6	1·68	4·7	2·70
East Shropshire	−0·1	−0·10	0·7	0·64	2·1	1·78
North Staffordshire	0·1	0·02	−2·9	−0·62	0·3	0·06
Rural west	−0·5	−0·16	−0·3	−0·09	1·4	0·46

Table 16. **The proportion of the population of Great Britain resident in the West Midland Region** *1801–1964*

Year	*Population of West Midland Region*			
	Enumerated		*Civilian*	
	No. (thousands)	*Percentage of the population of Great Britian*	*No. (thousands)*	*Percentage of the population of Great Britain*
(*1*)	(*2*)	(*3*)	(*4*)	(*5*)
1801	854	8·1	—	—
1811	971	8·1	—	—
1821	1,116	7·9	—	—
1831	1,293	8·0	—	—
1841	1,499	8·1	—	—
1851	1,705	8·2	—	—
1861	1,981	8·6	—	—
1871	2,205	8·5	—	—
1881	2,468	8·3	—	—
1891	2,654	8·0	—	—
—	2,664	8·1	—	—
1901	2,986	8·1	—	—
1911	3,277	8·0	—	—
1921	3,503	8·2	—	—
1931	3,743	8·4	—	—
1941	*No census*	*No census*	—	—
1951	4.423	9·1	4,383	9·1
1961	4,757	9·3	4,743	9·3
1964	—	—	4,913	9·4

NOTES

1. The figures given in column 2 are the census enumerated populations. In column 4 the Registrar General's mid-year estimates for 1951, 1961 and 1964 are given for comparison; equivalent estimates are not available for earlier years.

2. Figures for years prior to 1891 are for aggregates of Ancient Counties; subsequent ones relate to areas as constituted in 1964. Bridging figures are given for 1891.

Table 17. **Distribution of total employed**
Great Britain 1953–63

(*thousands*)

Area	*Estimated numbers of employees (total—male & female) in employment*										
	1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Great Britain . . .	20,601	20,955	21,285	21,511	21,599	21,443	21,488	21,937	22,250	22,476	22,484
Scotland	2,076	2,102	2,112	2,122	2,119	2,074	2,067	2,090	2,104	2,121	2,091
Northern Region . .	1,223	1,233	1,242	1,267	1,268	1,273	1,263	1,270	1,277	1,274	1,257
East and West Ridings Region	1,779	1,806	1,821	1,847	1,855	1,832	1,821	1,853	1,872	1,884	1,888
North Western Region . .	2,879	2,927	2,955	2,956	2,956	2,921	2,894	2,935	2,965	2,953	2,930
Wales	922	924	933	939	936	921	922	941	953	954	958
Midland Region . . .	1,996	2,056	2,124	2,135	2,118	2,112	2,122	2,205	2,223	2,254	2,255
North Midland Region .	1,419	1,435	1,458	1,478	1,490	1,482	1,482	1,521	1,555	1,568	1,575
South Western Region . .	1,126	1,147	1,165	1,174	1,181	1,174	1,196	1,219	1,253	1,271	1,287
South East England . .	7,182	7,325	7,475	7,591	7,674	7,653	7,720	7,902	8,047	8,198	8,243

Table 18. Distribution of employed males
Great Britain 1953–63

(*thousands*)

Area	*Estimated numbers of male employees in employment*										
	1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(*1*)	(*2*)	(*3*)	(*4*)	(*5*)	(*6*)	(*7*)	(*8*)	(*9*)	(*10*)	(*11*)	(*12*)
Great Britain	13,537	13,683	13,844	13,971	14,021	13,945	13,947	14,161	14,331	14,431	14,421
Scotland	1,363	1,374	1,376	1,380	1,378	1,353	1,336	1,342	1,347	1,350	1,326
Northern Region	871	876	879	894	892	894	882	879	877	870	849
East and West Ridings Region	1,179	1,187	1,193	1,205	1,206	1,199	1,192	1,208	1,215	1,222	1,227
North Western Region	1,800	1,818	1,836	1,841	1,841	1,825	1,807	1,826	1,845	1,841	1,833
Wales	676	671	672	673	672	661	657	666	673	666	667
Midland Region	1,313	1,338	1,378	1,385	1,379	1,379	1,388	1,434	1,440	1,457	1,459
North Midland Region	960	969	982	994	1,005	1,001	1,001	1,016	1,031	1,038	1,042
South Western Region	766	775	783	788	790	784	799	807	828	832	841
South East England	4,608	4,675	4,746	4,813	4,857	4,850	4,885	4,983	5,074	5,156	5,178

Table 19. **Distribution of employed females**
Great Britain 1953–63

(*thousands*)

Area	*Estimated numbers of female employees in employment*										
	1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(*1*)	(*2*)	(*3*)	(*4*)	(*5*)	(*6*)	(*7*)	(*8*)	(*9*)	(*10*)	(*11*)	(*12*)
Great Britain	7,064	7,272	7,440	7,540	7,579	7,498	7,541	7,776	7,919	8,044	8,063
Scotland	713	728	735	743	741	722	730	748	758	771	765
Northern Region	352	357	363	373	376	379	381	391	400	404	408
East and West Ridings Region	600	619	628	643	649	633	629	645	657	661	661
North Western Region	1,079	1,109	1,119	1,116	1,115	1,097	1,087	1,109	1,120	1,112	1,097
Wales	246	253	260	266	264	260	265	275	280	288	291
Midland Region	683	718	747	750	740	733	734	771	784	797	796
North Midland Region	459	466	476	484	485	481	482	505	523	529	533
South Western Region	360	372	382	387	391	390	398	412	425	439	446
South East England	2,574	2,650	2,729	2,778	2,818	2,803	2,836	2,919	2,972	3,043	3,066

Table 22. Male employment by Industrial Orders
Midland Region and Great Britain 1953, 1959 and 1963

(thousands)

Industrial Order		Estimated numbers of male employees in employment							
		1953		1959		1959		1963	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All industries and services	1,313·3	13,537·0	1,387·5	13,946·8	1,387·5	13,946·8	1,458·7	14,421·3
	Primary industries	115·6	1,491·3	106·6	1,352·0	106·9	1,355·0	85·9	1,122·2
I	Agriculture, Forestry, Fishing	47·0	634·6	41·0	548·8	41·4	548·8	35·5	461·9
II	Mining and Quarrying	68·6	856·7	65·6	803·2	65·5	806·2	50·4	660·3
	Manufacturing industries	739·9	5,445·1	790·4	5,784·1	778·2	5,610·8	819·3	5,840·6
III	Food, Drink and Tobacco	44·1	459·9	47·2	487·5	41·4	442·1	44·1	461·0
IV	Chemicals and Allied Industries	18·4	346·8	20·1	389·7	18·2	373·2	19·3	371·1
V	Metal Manufacture	114·0	515·4	118·7	520·3	111·9	502·6	116·1	518·7
VI & IX	Engineering and Electrical Goods and Metal Goods	267·9	1,586·8	292·0	1,765·8	301·9	1,734·3	333·5	1,916·3
VII	Shipbuilding and Marine Engineering	0·6	272·2	0·5	255·2	0·3	253·5	0·5	199·8
VIII	Vehicles	167·1	696·8	180·9	774·9	178·1	744·1	171·3	750·3
X	Textiles	16·3	402·7	17·8	372·6	17·2	372·7	18·0	362·5
XI	Leather, Leather Goods and Fur	2·8	43·2	2·4	37·0	2·1	36·4	2·1	35·5
XII	Clothing and Footwear	5·2	168·4	4·7	155·6	4·3	148·0	4·2	145·2
XIII	Bricks, Pottery, Glass, Cement, etc.	50·1	250·8	47·3	247·4	46·3	246·4	47·8	260·4
XIV	Timber, Furniture, etc.	16·2	232·2	16·0	226·2	15·7	221·6	16·2	225·3
XV	Paper, Printing and Publishing	15·3	322·7	17·0	378·3	16·6	368·2	18·8	407·7
XVI	Other Manufacturing Industries	21·9	147·2	25·8	173·6	24·2	167·7	27·4	186·8
XVII	**Construction**	94·8	1,259·1	107·3	1,300·8	110·5	1,313·9	129·7	1,460·4
	Service industries (excluding Construction)	363·0	5,341·5	383·2	5,509·9	391·9	5,667·1	423·8	5·998·1
XVIII	Gas, Electricity and Water	29·7	334·7	29·8	332·1	30·1	332·1	33·2	348·8
XIX	Transport and Communication	86·6	1,440·9	83·6	1,383·8	82·6	1,380·8	82·4	1,351·8
XX	Distributive Trades	79·1	1,113·5	93·2	1,232·2	101·1	1,307·8	107·4	1,374·2
XXI	Insurance, Banking and Finance	13·8	266·7	14·4	303·2	13·4	303·2	17·1	331·4
XXII	Professional and Scientific Services	40·6	537·1	47·3	629·8	48·3	648·8	58·7	749·2
XXIII	Miscellaneous Services	41·3	683·5	44·0	695·8	49·1	791·3	56·0	884·1
XXIV	Public Administration and Defence	71·9	965·1	70·9	933·0	67·3	903·1	69·0	958·6

NOTE
The estimates of numbers employed 1953 in columns 3 and 4 have been compiled from data for Minimum List Headings as defined in the 1948 Standard Industrial Classification. The 1959 estimates in columns 5 and 6 have been similarly compiled; they differ marginally from those given in columns 7 and 8 which are based on the 1958 Standard Industrial Classification.

Table 23. Female employment by Industrial Orders
Midland Region and Great Britain 1953, 1959 and 1963 *(thousands)*

Industrial Order		Estimated numbers of female employees in employment							
		1953		1959		1959		1963	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All industries and services	682·6	7,064·2	734·2	7,540·8	734·2	7,540·8	795·9	8,063·1
	Primary industries	8·4	120·8	9·4	116·5	9·3	116·4	9·9	113·9
I	Agriculture, Forestry, Fishing	7·0	100·9	7·3	92·3	7·3	92·3	7·9	91·8
II	Mining and Quarrying	1·4	19·9	2·1	24·2	2·0	24·1	2·0	22·1
	Manufacturing industries	358·0	2,774·2	361·9	2,777·0	356·2	2,692·9	368·3	2,740·9
III	Food, Drink and Tobacco	26·9	345·3	29·6	369·9	27·7	338·4	28·6	343·9
IV	Chemicals and Allied Industries	9·6	139·7	8·7	148·8	8·4	142·1	8·0	140·1
V	Metal Manufacture	28·9	80·4	30·2	82·2	21·8	70·2	22·8	72·7
VI & IX	Engineering and Electrical Goods and Metal Goods	129·3	594·2	139·5	662·1	151·2	677·2	166·0	754·6
VII	Shipbuilding and Marine Engineering	0·1	13·1	—	13·0	—	12·9	0·1	11·4
VIII	Vehicles	43·5	124·0	43·3	131·5	37·9	115·7	35·1	115·6
X	Textiles	20·8	561·0	19·3	467·5	19·5	467·0	18·9	413·9
XI	Leather, Leather Goods and Fur	4·3	29·0	4·2	26·8	4·1	26·4	4·3	26·1
XII	Clothing and Footwear	19·4	458·4	18·6	422·7	17·4	398·0	18·1	397·6
XIII	Bricks, Pottery, Glass, Cement, etc.	45·7	82·1	38·4	76·6	38·5	76·6	35·2	76·6
XIV	Timber, Furniture, etc.	5·0	58·6	5·1	61·5	4·9	57·8	4·7	55·5
XV	Paper, Printing and Publishing	11·7	182·8	12·4	203·0	12·3	200·5	13·5	212·9
XVI	Other Manufacturing Industries	12·8	105·6	12·6	111·4	12·5	110·1	13·0	120·0
XVII	**Construction**	3·8	46·7	5·8	63·9	6·0	64·9	7·6	80·0
	Service industries (excluding Construction)	312·4	4,122·5	357·1	4,583·4	362·7	4,666·6	410·1	5,128·3
XVIII	Gas, Electricity and Water	3·8	37·9	4·7	42·1	4·5	42·2	5·3	48·3
XIX	Transport and Communication	19·0	243·3	18·3	244·4	18·6	244·4	18·7	253·9
XX	Distributive Trades	86·0	1,105·8	101·7	1,308·8	107·2	1,386·5	123·9	1,529·3
XXI	Insurance, Banking and Finance	9·9	176·8	13·3	224·2	12·9	224·2	15·9	271·1
XXII	Professional and Scientific Services	80·1	987·8	99·9	1,193·9	108·7	1,268·0	125·3	1,465·1
XXIII	Miscellaneous Services	84·2	1,214·4	88·0	1,198·0	81·4	1,163·8	86·0	1,180·1
XXIV	Public Administration and Defence	29·4	356·5	31·2	372·0	29·4	337·5	35·0	380·5

NOTE
The estimates of numbers employed 1953 in cols. 3 and 4 have been compiled from data for Minimum List Headings as defined in the 1948 Standard Industrial Classification. The 1959 estimates in cols. 5 and 6 have been similarly compiled; they differ marginally from those given in cols. 7 and 8 which are based on the 1958 Standard Industrial Classification.

Table 24. **Total employment changes by Industrial Orders**
Midland Region and Great Britain 1953–59–63

(*percentages*)

Industrial Order		Changes in estimated numbers of employees (total—male & female) in employment					
		1953–63		1953–59		1959–63	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	13·0	9·1	6·3	4·3	6·3	4·6
	Primary industries	−22·9	−23·5	− 6·5	− 8·9	− 17·6	−16·0
I	Agriculture, Forestry, Fishing	−20·3	−24·7	−10·6	−12·8	− 10·9	−13·6
II	Mining and Quarrying	−24·9	−22·4	− 3·3	− 5·6	− 22·4	−17·8
	Manufacturing industries	9·9	7·6	5·0	4·2	4·7	3·3
III	Food, Drink and Tobacco	13·8	9·8	8·2	6·5	5·2	3·1
IV	Chemicals and Allied Industries	5·6	9·8	2·9	10·7	2·6	−0·8
V	Metal Manufacture	8·3	4·4	4·2	1·1	3·9	3·2
VI & IX	Engineering and Electrical Goods and Metal Goods	19·8	23·3	8·6	11·3	10·2	10·8
VII	Shipbuilding and Marine Engineering	42·9	−25·5	−28·6	− 6·0	100·0	−20·7
VIII	Vehicles	1·7	11·2	6·5	10·4	− 4·4	0·7
X	Textiles	0·5	−19·4	—	−12·8	0·5	− 7·5
XI	Leather, Leather Goods and Fur	− 4·0	−13·3	− 7·0	−11·6	3·2	− 1·9
XII	Clothing and Footwear	− 2·7	− 8·3	− 5·3	− 7·7	2·8	− 0·6
XIII	Bricks, Pottery, Glass, Cement, etc.	−12·4	1·5	−10·5	− 2·7	− 2·1	4·3
XIV	Timber, Furniture, etc.	1·0	− 0·6	− 0·5	− 1·1	1·5	0·5
XV	Paper, Printing and Publishing	21·7	25·5	8·9	15·0	11·8	9·1
XVI	Other Manufacturing Industries	21·8	24·5	10·7	12·7	10·1	10·4
XVII	**Construction**	35·2	16·8	14·7	4·5	17·9	11·7
	Service industries (excluding Construction)	21·1	14·8	9·6	6·6	10·5	7·7
XVIII	Gas, Electricity and Water	14·6	6·5	3·0	0·4	11·3	6·1
XIX	Transport and Communication	− 3·6	− 4·5	− 3·5	− 3·3	− 0·1	− 1·2
XX	Distributive Trades	31·1	23·4	18·0	14·5	11·0	7·8
XXI	Insurance, Banking and Finance	46·7	35·9	16·9	18·9	25·5	14·2
XXII	Professional and Scientific Services	42·9	38·2	22·0	19·6	17·2	15·5
XXIII	Miscellaneous Services	14·4	5·4	5·2	− 0·2	8·8	5·6
XXIV	Public Administration and Defence	8·4	6·6	0·8	− 1·3	7·5	7·9

Table 25. Male employment changes by Industrial Orders
Midland Region and Great Britain 1953–59–63 (*percentages*)

Industrial Order		Changes in estimated numbers of male employees in employment					
		1953–63		1953–59		1959–63	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	11·1	6·5	5·6	3·0	5·1	3·4
	Primary industries	−25·9	−24·9	− 7·8	− 9·3	−19·6	−17·2
I	Agriculture, Forestry, Fishing	−25·2	−27·2	−12·8	−13·5	−14·3	−15·8
II	Mining and Quarrying	−26·4	−23·2	− 4·4	− 6·2	−23·1	−18·1
	Manufacturing industries	12·5	10·6	6·8	6·2	5·3	4·1
III	Food, Drink and Tobacco	14·0	10·5	7·0	6·0	6·5	4·3
IV	Chemicals and Allied Industries	15·8	11·7	9·2	12·4	6·0	− 0·6
V	Metal Manufacture	8·0	4·2	4·1	1·0	3·8	3·2
VI & IX	Engineering and Electrical Goods and Metal Goods	20·4	23·0	9·0	11·3	10·5	10·5
VII	Shipbuilding and Marine Engineering	38·9	−26·1	−16·7	− 6·2	66·7	−21·2
VIII	Vehicles	4·1	12·1	8·3	11·2	− 3·8	0·8
X	Textiles	14·3	−10·0	9·2	− 7·5	4·7	− 2·7
XI	Leather, Leather Goods and Fur	−14·3	−16·5	−14·3	−14·4	—	− 2·5
XII	Clothing and Footwear	−11·7	− 9·3	− 9·6	− 7·6	− 2·3	− 1·9
XIII	Bricks, Pottery, Glass, Cement, etc.	− 2·5	4·2	− 5·6	− 1·4	3·2	5·7
XIV	Timber, Furniture, etc.	1·9	− 1·0	− 1·2	− 2·6	3·2	1·7
XV	Paper, Printing and Publishing	25·8	29·8	11·1	17·2	13·3	10·7
XVI	Other Manufacturing Industries	33·4	31·4	17·8	17·9	13·2	11·4
XVII	**Construction**	32·9	14·8	13·2	3·3	17·4	11·2
	Service industries (excluding Construction)	14·2	9·2	5·6	3·2	8·1	5·8
XVIII	Gas, Electricity and Water	10·7	4·2	0·3	− 0·8	10·3	5·0
XIX	Transport and Communication	− 3·7	− 6·0	− 3·5	− 4·0	− 0·2	− 2·1
XX	Distributive Trades	25·2	16·3	17·8	10·7	6·2	5·1
XXI	Insurance, Banking and Finance	33·2	24·3	4·3	13·7	27·6	9·3
XXII	Professional and Scientific Services	41·6	35·4	16·5	17·3	21·5	15·5
XXIII	Miscellaneous Services	21·5	13·7	6·5	1·8	14·1	11·7
XXIV	Public Administration and Defence	1·1	2·6	− 1·4	− 3·3	2·5	6·1

Table 24. **Total employment changes by Industrial Orders**
Midland Region and Great Britain 1953–59–63

(percentages)

Industrial Order		Changes in estimated numbers of employees (total—male & female) in employment					
		1953–63		1953–59		1959–63	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	13·0	9·1	6·3	4·3	6·3	4·6
	Primary industries	−22·9	−23·5	− 6·5	− 8·9	− 17·6	−16·0
I	Agriculture, Forestry, Fishing	−20·3	−24·7	−10·6	−12·8	− 10·9	−13·6
II	Mining and Quarrying	−24·9	−22·4	− 3·3	− 5·6	− 22·4	−17·8
	Manufacturing industries	9·9	7·6	5·0	4·2	4·7	3·3
III	Food, Drink and Tobacco	13·8	9·8	8·2	6·5	5·2	3·1
IV	Chemicals and Allied Industries	5·6	9·8	2·9	10·7	2·6	−0·8
V	Metal Manufacture	8·3	4·4	4·2	1·1	3·9	3·2
VI & IX	Engineering and Electrical Goods and Metal Goods	19·8	23·3	8·6	11·3	10·2	10·8
VII	Shipbuilding and Marine Engineering	42·9	−25·5	−28·6	− 6·0	100·0	−20·7
VIII	Vehicles	1·7	11·2	6·5	10·4	− 4·4	0·7
X	Textiles	0·5	−19·4	—	−12·8	0·5	− 7·5
XI	Leather, Leather Goods and Fur	− 4·0	−13·3	− 7·0	−11·6	3·2	− 1·9
XII	Clothing and Footwear	− 2·7	− 8·3	− 5·3	− 7·7	2·8	− 0·6
XIII	Bricks, Pottery, Glass, Cement, etc.	−12·4	1·5	−10·5	− 2·7	− 2·1	4·3
XIV	Timber, Furniture, etc.	1·0	− 0·6	− 0·5	− 1·1	1·5	0·5
XV	Paper, Printing and Publishing	21·7	25·5	8·9	15·0	11·8	9·1
XVI	Other Manufacturing Industries	21·8	24·5	10·7	12·7	10·1	10·4
XVII	**Construction**	35·2	16·8	14·7	4·5	17·9	11·7
	Service industries (excluding Construction)	21·1	14·8	9·6	6·6	10·5	7·7
XVIII	Gas, Electricity and Water	14·6	6·5	3·0	0·4	11·3	6·1
XIX	Transport and Communication	− 3·6	− 4·5	− 3·5	− 3·3	− 0·1	− 1·2
XX	Distributive Trades	31·1	23·4	18·0	14·5	11·0	7·8
XXI	Insurance, Banking and Finance	46·7	35·9	16·9	18·9	25·5	14·2
XXII	Professional and Scientific Services	42·9	38·2	22·0	19·6	17·2	15·5
XXIII	Miscellaneous Services	14·4	5·4	5·2	− 0·2	8·8	5·6
XXIV	Public Administration and Defence	8·4	6·6	0·8	− 1·3	7·5	7·9

Table 25. **Male employment changes by Industrial Orders**
Midland Region and Great Britain 1953–59–63

(*percentages*)

Industrial Order		Changes in estimated numbers of male employees in employment					
		1953–63		1953–59		1959–63	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	11·1	6·5	5·6	3·0	5·1	3·4
	Primary industries	−25·9	−24·9	− 7·8	− 9·3	−19·6	−17·2
I	Agriculture, Forestry, Fishing	−25·2	−27·2	−12·8	−13·5	−14·3	−15·8
II	Mining and Quarrying	−26·4	−23·2	− 4·4	− 6·2	−23·1	−18·1
	Manufacturing industries	12·5	10·6	6·8	6·2	5·3	4·1
III	Food, Drink and Tobacco	14·0	10·5	7·0	6·0	6·5	4·3
IV	Chemicals and Allied Industries	15·8	11·7	9·2	12·4	6·0	− 0·6
V	Metal Manufacture	8·0	4·2	4·1	1·0	3·8	3·2
VI & IX	Engineering and Electrical Goods and Metal Goods	20·4	23·0	9·0	11·3	10·5	10·5
VII	Shipbuilding and Marine Engineering	38·9	−26·1	−16·7	− 6·2	66·7	−21·2
VIII	Vehicles	4·1	12·1	8·3	11·2	− 3·8	0·8
X	Textiles	14·3	−10·0	9·2	− 7·5	4·7	− 2·7
XI	Leather, Leather Goods and Fur	−14·3	−16·5	−14·3	−14·4	—	− 2·5
XII	Clothing and Footwear	−11·7	− 9·3	− 9·6	− 7·6	− 2·3	− 1·9
XIII	Bricks, Pottery, Glass, Cement, etc.	− 2·5	4·2	− 5·6	− 1·4	3·2	5·7
XIV	Timber, Furniture, etc.	1·9	− 1·0	− 1·2	− 2·6	3·2	1·7
XV	Paper, Printing and Publishing	25·8	29·8	11·1	17·2	13·3	10·7
XVI	Other Manufacturing Industries	33·4	31·4	17·8	17·9	13·2	11·4
XVII	**Construction**	32·9	14·8	13·2	3·3	17·4	11·2
	Service industries (excluding Construction)	14·2	9·2	5·6	3·2	8·1	5·8
XVIII	Gas, Electricity and Water	10·7	4·2	0·3	− 0·8	10·3	5·0
XIX	Transport and Communication	− 3·7	− 6·0	− 3·5	− 4·0	− 0·2	− 2·1
XX	Distributive Trades	25·2	16·3	17·8	10·7	6·2	5·1
XXI	Insurance, Banking and Finance	33·2	24·3	4·3	13·7	27·6	9·3
XXII	Professional and Scientific Services	41·6	35·4	16·5	17·3	21·5	15·5
XXIII	Miscellaneous Services	21·5	13·7	6·5	1·8	14·1	11·7
XXIV	Public Administration and Defence	1·1	2·6	− 1·4	− 3·3	2·5	6·1

Table 26. Female employment changes by Industrial Orders
Midland Region and Great Britain 1953–59–63

(*percentages*)

Industrial Order		Changes in estimated numbers of female employees in employment					
		1953–63		1953–59		1959–63	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	16·6	14·1	7·6	6·7	8·4	6·9
	Primary industries	19·1	−5·6	11·9	−3·6	6·5	− 2·1
I	Agriculture, Forestry, Fishing	12·9	−9·0	4·3	−8·5	8·2	− 0·5
II	Mining and Quarrying	50·0	11·5	50·0	21·6	—	− 8·3
	Manufacturing industries	4·5	1·9	1·1	0·1	3·4	1·8
III	Food, Drink and Tobacco	13·6	8·9	10·0	7·1	3·2	1·6
IV	Chemicals and Allied Industries	−13·7	5·0	−9·4	6·5	−4·8	−1·4
V	Metal Manufacture	9·3	5·9	4·5	2·2	4·6	3·6
VI & IX	Engineering and Electrical Goods and Metal Goods	18·4	24·2	7·9	11·4	9·8	11·4
VII	Shipbuilding and Marine Engineering	—	−12·3	—	−0·8	—	−11·6
VIII	Vehicles	−7·8	6·0	−0·5	6·0	−7·4	−0·1
X	Textiles	−10·1	−26·1	−7·2	−16·7	−3·1	−11·4
XI	Leather, Leather Goods and Fur	2·4	−8·6	−2·3	−7·6	4·9	−1·1
XII	Clothing and Footwear	−0·3	−7·9	−4·1	−7·8	4·0	−0·1
XIII	Bricks, Pottery, Glass, Cement, etc.	−23·2	−6·7	−16·0	−6·7	−8·6	—
XIV	Timber, Furniture, etc.	−2·2	0·8	2·0	4·9	−4·1	−4·0
XV	Paper, Printing and Publishing	16·3	17·9	6·0	11·1	9·8	6·2
XVI	Other Manufacturing Industries	2·4	15·0	−1·6	5·5	4·0	9·0
XVII	**Construction**	93·3	68·7	52·6	36·8	26·7	23·3
	Service industries (excluding Construction)	29·2	22·2	14·3	11·2	13·1	9·9
XVIII	Gas, Electricity and Water	45·7	27·1	23·7	11·1	17·8	14·5
XIX	Transport and Communication	−3·2	4·4	−3·7	0·5	0·5	3·9
XX	Distributive Trades	36·7	30·5	18·3	18·4	15·6	10·3
XXI	Insurance, Banking and Finance	65·6	53·3	34·3	26·8	23·3	20·9
XXII	Professional and Scientific Services	43·8	40·0	24·7	20·9	15·3	15·5
XXIII	Miscellaneous Services	10·4	—	4·5	−1·4	5·7	1·4
XXIV	Public Administration and Defence	26·3	17·6	6·1	4·3	19·0	12·7

Table 27. Mean annual total employment changes by Industrial Orders
Midland Region and Great Britain 1953–59–63

(*percentages*)

Industrial Order		Mean annual compound rates of change in estimated numbers of employees (total—male and female) in employment					
		1953–63		1953–59		1959–63	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	1·2	0·9	1·0	0·7	1·5	1·1
	Primary industries	−2·6	−2·6	−1·1	−1·5	−4·7	−4·3
I	Agriculture, Forestry, Fishing	−2·2	−2·8	−1·9	−2·3	−2·8	−3·6
II	Mining and Quarrying	−2·8	−2·5	−0·6	−1·0	−6·1	−4·8
	Manufacturing industries	0·9	0·7	0·8	0·7	1·2	0·8
III	Food, Drink and Tobacco	1·3	0·9	1·3	1·1	1·3	0·8
IV	Chemicals and Allied Industries	0·5	0·9	0·5	1·7	0·6	− 0·2
V	Metal Manufacture	0·8	0·4	0·7	0·2	1·0	0·8
VI & IX	Engineering and Electrical Goods and Metal Goods	1·8	2·1	1·4	1·8	2·5	2·6
VII	Shipbuilding and Marine Engineering	—	—	—	—	—	—
VIII	Vehicles	0·2	1·1	1·1	1·7	−1·1	0·2
X	Textiles	0	−2·1	0	−2·3	0·1	−1·9
XI	Leather, Leather Goods and Fur	—	—	—	—	—	—
XII	Clothing and Footwear	−0·3	−0·9	−0·9	−1·3	0·7	−0·2
XIII	Bricks, Pottery, Glass Cement, etc.	−1·3	0·1	−1·8	−0·5	−0·5	1·1
XIV	Timber, Furniture, etc.	0·1	−0·1	−0·1	−0·2	0·4	0·1
XV	Paper, Printing and Publishing	2·0	2·3	1·4	2·4	2·8	2·2
XVI	Other Manufacturing Industries	2·0	2·2	1·7	2·0	2·4	2·5
XVII	**Construction**	3·1	1·6	2·3	0·7	4·2	2·8
	Service industries (excluding Construction)	1·9	1·4	1·5	1·1	2·5	1·9
XVIII	Gas, Electricity and Water	1·4	0·6	0·5	0·1	2·7	1·5
XIX	Transport and Communication	−0·4	−0·5	−0·6	−0·6	0	−0·3
XX	Distributive Trades	2·7	2·1	2·8	2·3	2·6	1·9
XXI	Insurance, Banking and Finance	3·9	3·1	2·6	2·9	5·8	3·4
XXII	Professional and Scientific Services	3·6	3·3	3·4	3·0	4·0	3·7
XXIII	Miscellaneous Services	1·4	0·5	0·8	0	2·1	1·4
XXIV	Public Administration and Defence	0·8	0·6	0·1	−0·2	1·8	1·9

NOTE
Mean annual rates of change are not given in the table for Industrial Orders in which the estimated numbers employed in the Midland Region are less than 10,000.

Table 28. **Mean annual male employment changes by Industrial Orders**
Midland Region and Great Britain 1953–59–63

(*percentages*)

Industrial Order		Mean annual compound rates of change in estimated numbers of male employees in employment					
		1953–63		1953–59		1959–63	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	1·1	0·6	0·9	0·5	1·3	0·8
	Primary industries	−3·0	−2·8	−1·3	−1·6	−5·3	−4·6
I	Agriculture, Forestry, Fishing	−2·9	−3·1	−2·3	−2·4	−3·8	−4·2
II	Mining and Quarrying	−3·0	−2·6	−0·7	−1·1	−6·4	−4·9
	Manufacturing industries	1·2	1·0	1·1	1·0	1·3	1·0
III	Food, Drink and Tobacco	1·3	1·0	1·1	1·0	1·6	1·1
IV	Chemicals and Allied Industries	1·5	1·1	1·5	2·0	1·5	−0·2
V	Metal Manufacture	0·8	0·4	0·7	0·2	0·9	0·8
VI & IX	Engineering & Electrical Goods & Metal Goods	1·9	2·1	1·4	1·8	2·5	2·5
VII	Shipbuilding and Marine Engineering	—	—	—	—	—	—
VIII	Vehicles	0·4	1·1	1·3	1·8	−1·0	0·2
X	Textiles	1·3	−1·0	1·5	−1·3	1·2	−0·7
XI	Leather, Leather Goods and Fur	—	—	—	—	—	—
XII	Clothing and Footwear	—	—	—	—	—	—
XIII	Bricks, Pottery, Glass, Cement, etc.	−0·3	0·4	−1·0	−0·2	0·8	1·4
XIV	Timber, Furniture, etc.	0·2	−0·1	−0·2	−0·4	0·8	0·4
XV	Paper, Printing and Publishing	2·3	2·6	1·8	2·7	3·2	2·6
XVI	Other Manufacturing Industries	2·9	2·8	2·8	2·8	3·1	2·7
XVII	**Construction**	2·9	1·4	2·1	0·5	4·1	2·7
	Service industries (excluding Construction)	1·3	0·9	0·9	0·5	2·0	1·4
XVIII	Gas, Electricity and Water	1·0	0·4	0	−0·1	2·5	1·2
XIX	Transport and Communication	−0·4	−0·6	−0·6	−0·7	−0·1	−0·5
XX	Distributive Trades	2·3	1·5	2·8	1·7	1·5	1·3
XXI	Insurance, Banking and Finance	2·9	2·2	0·7	2·2	6·3	2·2
XXII	Professional and Scientific Services	3·5	3·1	2·6	2·7	5·0	3·7
XXIII	Miscellaneous Services	2·0	1·3	1·1	0·3	3·4	2·8
XXIV	Public Administration and Defence	0·1	0·3	−0·2	−0·6	0·6	1·5

NOTE
Mean annual rates of change are not given in the table for Industrial Orders in which the estimated numbers employed in the Midland Region are less than 10,000.

Table 29. **Mean annual female employment changes by Industrial Orders**
Midland Region and Great Britain 1953–59–63

(*percentages*)

Industrial Order		Mean annual compound rates of change in estimated numbers of female employees in employment					
		1953–63		1953–59		1959–63	
No.	Title	Midland Region	Great Britain	Midland Region	Great Britain	Midland Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	1·5	1·3	1·2	1·1	2·0	1·7
	Primary industries	1·8	−0·6	1·9	−0·6	1·6	−0·5
I	Agriculture, Forestry, Fishing	—	—	—	—	—	—
II	Mining and Quarrying	—	—	—	—	—	—
	Manufacturing industries	0·4	0·2	0·2	0	0·8	0·4
III	Food, Drink and Tobacco	1·3	0·9	1·6	1·1	0·8	0·4
IV	Chemicals and Allied Industries	—	—	—	—	—	—
V	Metal Manufacture	0·9	0·6	0·7	0·4	1·1	0·9
VI & IX	Engineering and Electrical Goods and Metal Goods	1·7	2·2	1·3	1·8	2·4	2·7
VII	Shipbuilding and Marine Engineering	—	—	—	—	—	—
VIII	Vehicles	−0·8	0·6	−0·1	1·0	−1·9	0
X	Textiles	−1·1	−3·0	−1·2	−3·0	−0·8	−3·0
XI	Leather, Leather Goods and Fur	—	—	—	—	—	—
XII	Clothing and Footwear	0	−0·8	−0·7	−1·3	1·0	0
XIII	Bricks, Pottery, Glass, Cement, etc.	−2·6	−0·7	−2·9	−1·1	−2·2	0
XIV	Timber, Furniture, etc.	—	—	—	—	—	—
XV	Paper, Printing and Publishing	1·5	1·7	1·0	1·8	2·4	1·5
XVI	Other Manufacturing Industries	0·2	1·4	−0·3	0·9	1·0	2·2
XVII	**Construction**	—	—	—	—	—	—
	Service industries (excluding Construction)	2·6	2·0	2·3	1·8	3·1	2·4
XVIII	Gas, Electricity and Water	—	—	—	—	—	—
XIX	Transport and Communication	−0·3	0·4	−0·6	0·1	0·1	1·0
XX	Distributive Trades	3·2	2·7	2·8	2·9	3·7	2·5
XXI	Insurance, Banking and Finance	5·2	4·4	5·0	4·0	5·4	4·9
XXII	Professional and Scientific Services	3·7	3·4	3·7	3·2	3·6	3·7
XXIII	Miscellaneous Services	1·0	0	0·7	−0·2	1·4	0·3
XXIV	Public Administration and Defence	2·4	1·6	1·0	0·7	4·4	3·0

NOTE
Mean annual rates of change are not given in the table for Industrial Orders in which the estimated numbers employed in the Midland Region are less than 10,000.

Table 30. Activity rates: total (males and females)
Great Britain 1953–63

Area	*Estimated number of employees (total—male and female), employed and unemployed, as percentage of the home population aged 15 and over*										
	1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Great Britain	54·8	55·5	56·1	56·6	56·8	56·5	56·3	56·7	57·0	57·0	56·9
Scotland	55·3	55·8	55·8	56·1	56·2	55·5	55·4	55·6	56·0	56·4	56·1
Northern Region	52·3	52·5	52·5	53·3	53·3	53·8	53·4	53·2	53·2	52·7	52·6
East and West Ridings Region	56·9	57·4	57·8	58·6	58·9	58·4	57·8	58·2	58·7	58·5	58·8
North Western Region	58·8	59·5	59·9	59·9	60·1	59·8	59·2	59·4	59·6	59·1	59·0
Wales	47·2	47·1	47·3	47·6	47·6	47·3	47·1	47·5	48·0	48·0	48·0
North Midland Regioo	54·3	54·7	55·2	55·9	56·0	55·7	55·2	55·8	56·0	55·8	55·7
Midland Region	59·1	60·4	62·1	62·1	61·5	61·1	60·7	62·0	61·3	61·3	60·9
South Westero Region	45·2	46·0	46·5	47·0	47·4	46·6	47·1	47·3	47·8	47·9	48·1
South East England	55·1	55·9	56·6	57·3	57·8	57·8	57·7	58·4	58·9	59·1	58·9

NOTE
In this table Dorset (excluding Poole) is included in South East England for the years prior to 1958.

Table 31. **Activity rates: males**
Great Britain 1953–63

Area	*Age group*	*Estimated number of male employees, employed and unemployed, as percentage of the home population in the same age groups*										
		1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*	*(13)*
Great Britain	**15 and over**	76·4	76·9	77·3	77·8	78·0	77·9	77·4	77·5	77·5	77·0	76·9
	65 and over	24·2	24·1	25·3	26·1	26·1	24·7	21·5	21·6	21·1	20·0	19·4
Scotland	15 and over	77·7	78·1	77·8	77·9	78·2	77·4	76·5	76·1	76·6	76·7	76·3
	65 and over	26·6	28·0	26·6	27·9	27·8	26·5	23·4	22·3	21·0	20·2	18·7
Northern Region	15 and over	76·5	76·9	76·6	77·5	77·3	77·8	77·0	75·9	75·0	73·8	73·3
	65 and over	17·7	18·4	18·3	18·3	16·7	16·8	15·2	15·2	15·1	14·2	11·6
East and West Ridings Region	15 and over	79·9	80·2	80·3	81·0	81·1	81·0	80·2	80·3	80·2	79·6	80·3
	65 and over	24·8	23·7	23·9	24·9	24·7	22·7	18·8	18·6	19·8	18·0	18·1
North Western Region	15 and over	79·8	79·9	80·3	80·5	80·7	80·7	79·8	79·6	79·7	78·9	79·2
	65 and over	22·4	22·9	24·3	25·6	25·4	23·7	19·8	19·6	20·7	19·4	18·9
Wales	15 and over	71·2	70·8	70·4	70·4	70·6	70·2	69·4	69·4	69·6	68·7	68·9
	65 and over	19·3	17·6	18·9	18·7	19·4	17·8	15·5	15·4	15·5	13·1	12·9
North Midland Region	15 and over	75·9	76·3	76·8	77·7	78·0	77·5	76·7	76·7	76·0	75·5	75·3
	65 and over	24·2	23·9	25·6	26·5	26·2	24·4	20·6	19·8	20·0	18·6	18·5
Midland Region	15 and over	80·3	81·5	83·4	83·4	82·8	82·5	82·1	83·2	81·6	81·1	80·8
	65 and over	31·5	30·6	33·2	33·3	31·2	29·0	24·6	24·9	23·7	23·4	23·7
South Western Region	15 and over	64·6	65·2	65·6	66·3	66·7	65·7	66·5	66·2	66·6	65·9	65·9
	65 and over	17·4	17·3	19·1	19·7	20·1	18·5	15·9	17·4	17·7	15·8	14·9
South East England	15 and over	76·0	76·7	77·1	77·9	78·3	78·5	78·4	78·9	79·3	79·1	78·6
	65 and over	25·6	25·6	27·2	28·1	28·9	27·8	24·9	25·4	23·7	22·9	22·7

NOTE
In this table Dorset (excluding Poole) is included in South East England for the years prior to 1958.

Table 32. Activity rates: females
Great Britain 1953–63

Area	*Age Group*	*Estimated number of female employees, employed and unemployed, as percentage of the home population in the same age groups*										
		1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*	*(13)*
Great Britain	**15 and over**	**35·6**	**36·4**	**37·1**	**37·6**	**37·7**	**37·3**	**37·3**	**38·1**	**38·5**	**38·8**	**38·8**
	60 and over	**7·2**	**7·3**	**7·8**	**8·5**	**8·8**	**8·9**	**8·9**	**9·1**	**9·2**	**9·3**	**9·6**
Scotland	15 and over	35·7	36·3	36·5	37·0	36·9	36·2	36·6	37·3	37·8	38·2	38·3
	60 and over	7·0	7·1	7·7	8·3	8·6	8·5	8·6	9·1	9·0	9·1	8·9
Northern Region	15 and over	29·4	29·6	29·9	30·5	30·7	31·1	31·1	31·7	32·4	32·5	32·9
	60 and over	4·6	4·9	5·2	5·1	6·1	5·7	5·6	5·8	6·5	6·4	6·5
East and West Ridings Region	15 and over	36·3	37·1	37·7	38·6	39·0	38·1	37·8	38·3	39·3	39·2	39·1
	60 and over	6·4	7·1	7·5	7·9	8·8	9·4	9·4	9·4	9·4	9·0	9·0
North Western Region	15 and over	40·8	41·9	42·2	42·1	42·1	41·6	41·3	41·8	42·0	41·6	41·2
	60 and over	8·1	8·6	8·9	9·7	9·9	9·8	9·7	9·7	9·9	9·3	9·6
Wales	15 and over	24·6	25·0	25·6	26·2	26·0	25·9	26·2	27·0	27·5	28·2	28·2
	60 and over	3·5	3·5	3·8	4·6	4·1	4·9	4·8	4·3	4·3	5·1	4·8
North Midland Region	15 and over	34·1	34·4	35·0	35·4	35·4	35·1	34·8	36·0	36·8	36·9	36·8
	60 and over	6·6	6·9	7·7	8·2	8·3	8·5	7·8	8·5	8·6	9·0	8·9
Midland Region	15 and over	39·2	40·8	42·2	42·3	41·5	40·6	40·7	42·1	42·0	42·3	41·9
	60 and over	9·1	8·3	9·4	10·3	11·1	10·9	10·5	10·7	10·2	10·9	11·7
South Western Region	15 and over	27·6	28·5	29·2	29·5	29·9	29·4	29·6	30·3	30·9	31·4	31·8
	60 and over	4·9	5·5	5·4	5·3	5·5	5·0	6·1	6·2	6·1	6·5	6·9
South East England	15 and over	36·9	37·8	38·7	39·3	39·7	39·5	39·6	40·3	40·9	41·3	41·3
	60 and over	8·1	8·0	8·6	9·5	9·8	10·1	10·0	10·3	10·6	10·6	11·2

NOTA
In this table Dorset (excluding Poole) is included in South East England for the years prior to 1958.

Table 33. **Unemployment rates**
Midland Region and Great Britain 1953–63

Year	*Unemployment percentages: annual averages*						*Unemployment percentages for the Midland Region as ratios of the Great Britain percentages*		
	Total		*Male*		*Female*				
	Midland Region	*Great Britain*	*Midland Region*	*Great Britain*	*Midland Region*	*Great Britain*	*Total*	*Male*	*Female*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1953	1·1	1·6	1·0	1·6	1·2	1·7	0·7	0·6	0·7
1954	0·6	1·3	0·6	1·3	0·6	1·4	0·5	0·4	0·5
1955	0·5	1·1	0·5	1·1	0·5	1·1	0·4	0·4	0·4
1956	1·1	1·2	1·1	1·2	1·0	1·2	0·9	0·9	0·9
1957	1·3	1·4	1·3	1·5	1·2	1·3	0·9	0·8	1·0
1958	1·6	2·1	1·7	2·3	1·3	1·8	0·8	0·8	0·8
1959	1·5	2·2	1·6	2·4	1·3	1·7	0·7	0·6	0·8
1960	1·0	1·6	1·0	1·8	0·8	1·3	0·6	0·6	0·7
1961	1·4	1·5	1·6	1·7	1·0	1·1	0·9	1·0	0·9
1962	1·8	2 0	2·1	2·3	1·2	1·5	0·9	0·9	0·8
1963	2·1	2·5	2·5	3·0	1·2	1·6	0·8	0·8	0·8

NOTE
The unemployment rates given in columns 2–7 are the annual averages of the monthly figures of total registered unemployed (including temporarily stopped) expressed as a percentage of the estimated numbers of employees (employed and unemployed) at mid-year.

Table 34. **Inter-regional migration of employees**
Midland Region and the rest of Great Britain 1953–63 *(thousands)*

Origin/Destination of migrants	Average no. of migrant employees per annum: To the Midland Region: Total	Males	Females	From the Midland Region: Total	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)
All areas of Great Britain outside the Midland Region	55·6	39·6	16·0	57·5	40·2	17·3
Scotland	3·2	2·2	1·0	2·1	1·4	0·7
Northern Region	2·4	1·8	0·6	1·8	1·4	0·4
East and West Ridings Region	3·7	2·8	0·9	3·3	2·4	0·8
North Western Region	8·0	5·5	2·5	8·3	5·7	2·6
Wales	4·8	3·7	1·1	4·5	3·5	1·0
North Midland Region	8·6	6·3	2·2	8·3	6·0	2·3
South Western Region	5·4	3·6	1·8	6·3	4·5	1·8
South East England	19·6	13·7	5·9	22·8	15·1	7·7

Table 35. **Inter-regional migration of employees**
Great Britain 1953–63 *(thousands)*

Area	Male: In	Male: Out	Male: Net gain (+) or loss (−) by migration	Female: In	Female: Out	Female: Net gain (+) or loss (−) by migration	Total gain (+) or loss (−) as percentage of estimated average numbers of employees 1953–63
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Scotland	183	262	− 79	85	119	− 34	−5·2
Northern Region	213	266	− 53	84	108	− 24	−6·0
East and West Ridings Region	327	340	− 13	140	161	− 21	−1·8
North Western	441	460	− 19	200	209	− 9	−0.9
Wales	195	220	− 25	75	92	− 17	−4·4
North Midland Region	335	328	+ 7	135	143	− 8	−0·1
Midland Region	396	402	− 6	160	173	− 13	−0·9
South Western Region	295	295	0	145	138	+ 7	+0·6
South East England	1,044	856	+188	522	403	+119	+3·9

Table 36. **Industrial development**
Great Britain 1953–63

Area	Floor space completed (million sq. ft.)	Estimated employment provided (thousands)			Employment provided as a percentage of all employees in employment mid-1953
		Total	Males	Females	
(1)	(2)	(3)	(4)	(5)	(6)
Great Britain	488·4	771·9	508·3	263·6	3·7
Scotland	44·6	92·5	63·0	29·5	4·5
Northern Region	34·2	63·7	44·7	19·0	5·2
East and West Ridings Region	39·7	46·3	31·2	15·1	2·6
North Western Region	69·3	117·0	78·0	39·0	4·1
Wales	31·7	60·5	46·0	14·5	6·6
North Midland Region	36·8	51·4	31·4	20·0	3·6
Midland Region	63·1	66·7	42·0	24·7	3·3
West Midlands conurbation	36·2	32·1	20·9	11·2	*n.a.*
South Western Region	24·5	46·1	28·7	17·4	4·1
South East England	144·5	227·6	143·3	84·4	3·2

NOTE
The statistics of industrial building relate only to those new buildings and extensions for which Board of Trade locational approval has had to be obtained. In respect of such schemes approved up to 31st March 1960, only those completed projects which involved more than 5,000 sq. ft. of floor space and which were for applicants engaged in the manufacturing industries have been included. All completed projects for which approvals were given since that date are included. In these cases the figures cover only those parts of buildings for which an Industrial Development Certificate, as provided for in the Local Employment Act 1960, was required.

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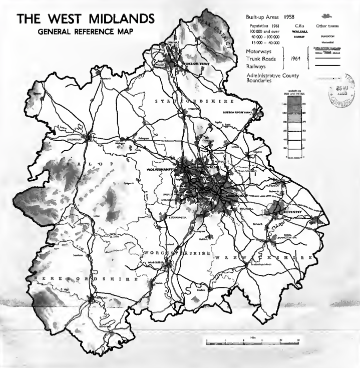

THE WEST MIDLANDS
GENERAL REFERENCE MAP
Built-up Areas 1958
Population 1961
C.B.s
Other towns
100 000 and over
WALSALL
40 000 – 100 000
DUDLEY
15 000 – 40 000
Motorways
Trunk Roads
Railways
1964
Administrative County Boundaries
HEIGHTS IN FEET AND METRES
PEAK DISTRICT
STOKE-ON-TRENT
STAFFORDSHIRE
BURTON UPON TRENT
SALOP
WOLVERHAMPTON
WALSALL
BIRMINGHAM
COVENTRY
NUNEATON
SOLIHULL
KIDDERMINSTER
WORCESTERSHIRE
WARWICKSHIRE
ROYAL LEAMINGTON SPA
WORCESTER
HEREFORDSHIRE
Miles